



This is a digital copy of a book that was preserved for generations on library shelves before it was carefully scanned by Google as part of a project to make the world's books discoverable online.

It has survived long enough for the copyright to expire and the book to enter the public domain. A public domain book is one that was never subject to copyright or whose legal copyright term has expired. Whether a book is in the public domain may vary country to country. Public domain books are our gateways to the past, representing a wealth of history, culture and knowledge that's often difficult to discover.

Marks, notations and other marginalia present in the original volume will appear in this file - a reminder of this book's long journey from the publisher to a library and finally to you.

Usage guidelines

Google is proud to partner with libraries to digitize public domain materials and make them widely accessible. Public domain books belong to the public and we are merely their custodians. Nevertheless, this work is expensive, so in order to keep providing this resource, we have taken steps to prevent abuse by commercial parties, including placing technical restrictions on automated querying.

We also ask that you:

- + *Make non-commercial use of the files* We designed Google Book Search for use by individuals, and we request that you use these files for personal, non-commercial purposes.
- + *Refrain from automated querying* Do not send automated queries of any sort to Google's system: If you are conducting research on machine translation, optical character recognition or other areas where access to a large amount of text is helpful, please contact us. We encourage the use of public domain materials for these purposes and may be able to help.
- + *Maintain attribution* The Google "watermark" you see on each file is essential for informing people about this project and helping them find additional materials through Google Book Search. Please do not remove it.
- + *Keep it legal* Whatever your use, remember that you are responsible for ensuring that what you are doing is legal. Do not assume that just because we believe a book is in the public domain for users in the United States, that the work is also in the public domain for users in other countries. Whether a book is still in copyright varies from country to country, and we can't offer guidance on whether any specific use of any specific book is allowed. Please do not assume that a book's appearance in Google Book Search means it can be used in any manner anywhere in the world. Copyright infringement liability can be quite severe.

About Google Book Search

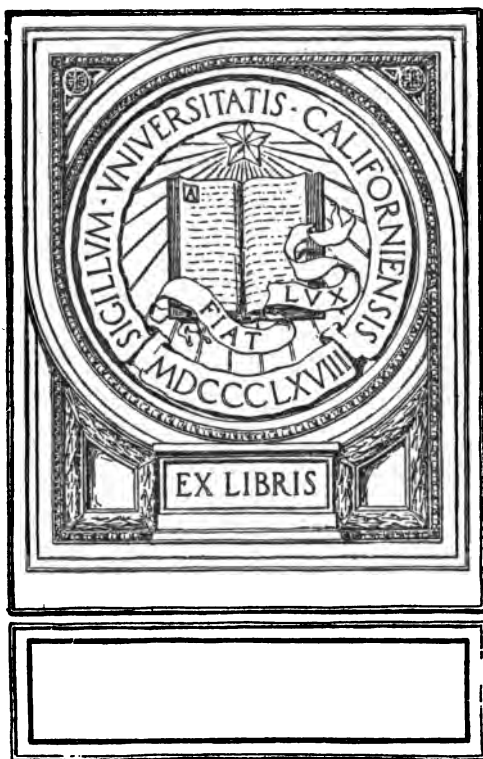
Google's mission is to organize the world's information and to make it universally accessible and useful. Google Book Search helps readers discover the world's books while helping authors and publishers reach new audiences. You can search through the full text of this book on the web at <http://books.google.com/>

UC-NRLF



5B 54 096

IN MEMORIAM
FLORIAN CAJORI



7. Cajón

THE ELEMENTS
OF
GRAPHICAL STATICS
AND THEIR APPLICATION TO
FRAMED STRUCTURES,

WITH NUMEROUS PRACTICAL EXAMPLES OF

CRANES—BRIDGE, ROOF AND SUSPENSION TRUSSES—BRACED
AND STONE ARCHES—PIVOT AND DRAW SPANS—
CONTINUOUS GIRDERS, &c.,

TOGETHER WITH THE BEST

METHODS OF CALCULATION,

AND CONTAINING ALSO

NEW AND PRACTICAL FORMULÆ

FOR THE

Pivot or Draw Span—Braced Arch—Continuous Girder, Etc.

BY

A. JAY DU BOIS, C.E., Ph.D.

PROFESSOR OF CIVIL AND MECHANICAL ENGINEERING, LEHIGH UNIVERSITY, PENNA.

"Peu à peu les connaissances algébriques deviendront moins indispensables, et la science, réduite à ce qu'elle doit être, à ce qu'elle devrait être déjà, sera ainsi mise à la portée de cette classe d'hommes, qui n'a que des moments fort rares à y consacrer." [*Poncelet-Tratté des propriétés projectives des figures, Paris, 1828.*]

PLATES.

NEW YORK:
JOHN WILEY AND SON,
15 ASTOR PLACE.
1875.

TG270
18
atlas

COPYRIGHT, 1875, BY
JOHN WILEY & SON,

TO THE
AMERICAN
CAJORI

JOHN F. TROW & SON,
PRINTERS AND STEREOTYPERS,
205-213 East 12th St.,
NEW YORK.

Fig. 1. (Art. 2).

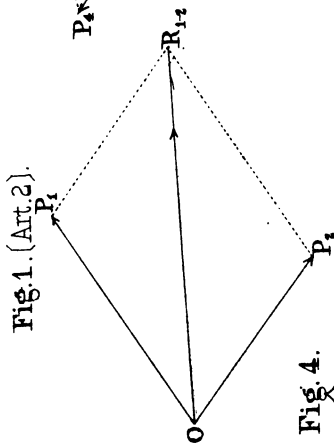


Fig. 2. (Art. 3).

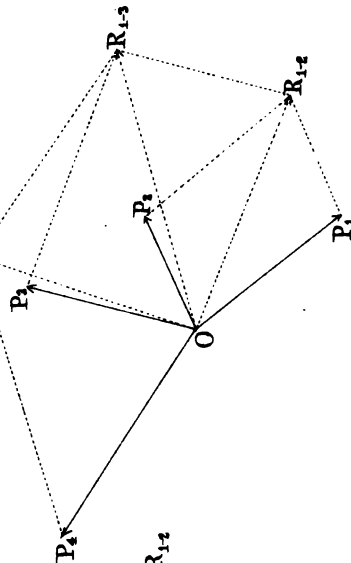


Fig. 4.

(a) (Art. 7). (b)

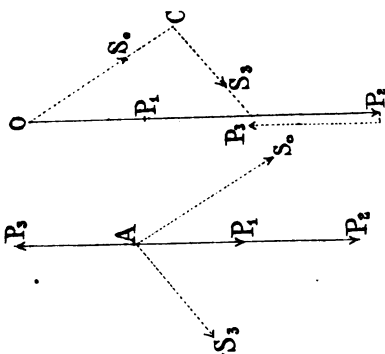
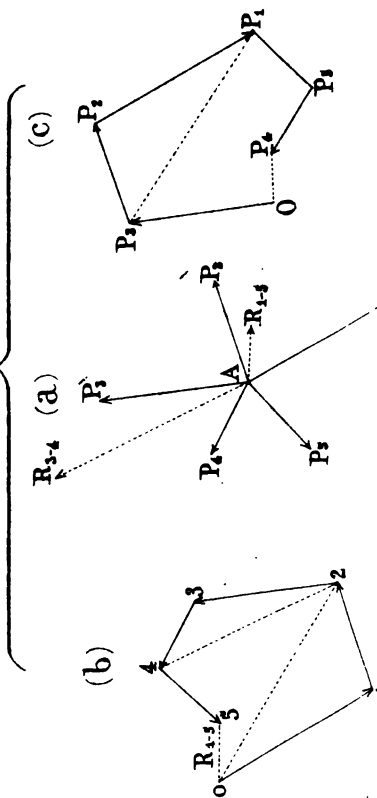
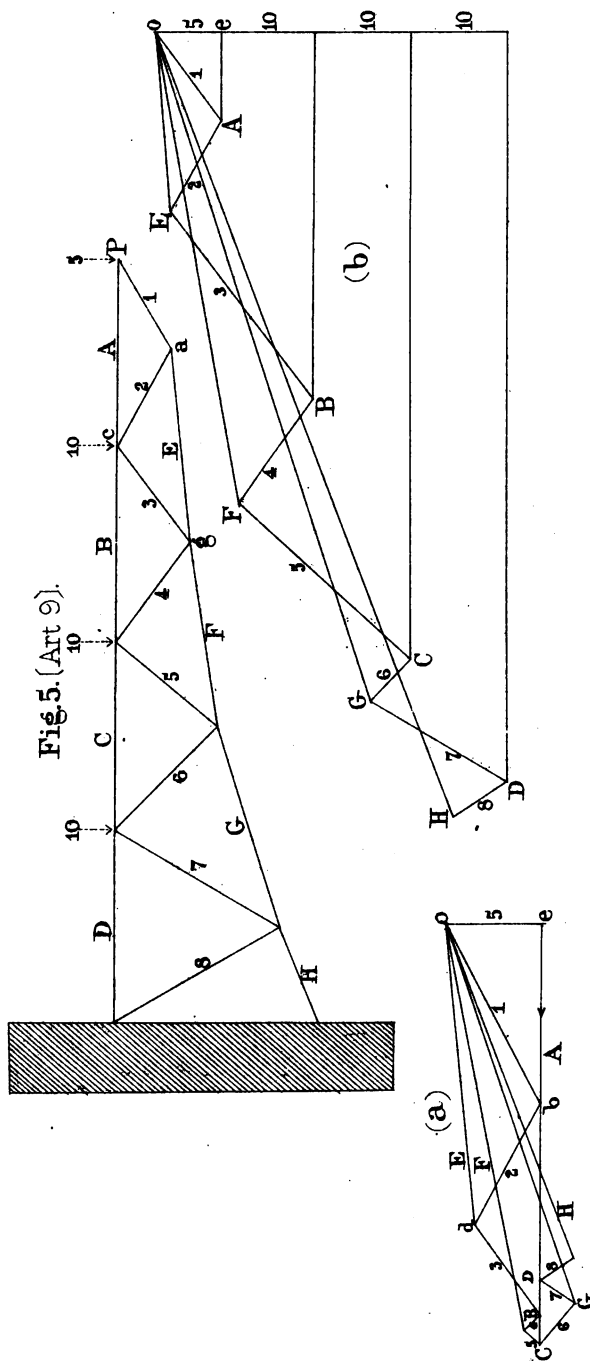


Fig. 3. (Art. 5).

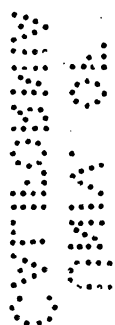


P_1

Fig. 5. (Art 9).



UNIV. OF
CALIFORNIA



The drawing shows a detailed technical representation of a roof truss. The main part of the drawing is a side elevation of the truss, showing the rafters (Dachstuhl) and the supporting structure. The rafters are labeled with numbers 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100. The rafters are supported by a series of beams (Dachstuhl) and a central vertical support (Dachstuhl). The drawing also includes a cross-section view of the truss, showing the internal structure and the supporting beams. The cross-section is labeled with letters A, B, C, D, E, F, G, H, I, J, K, L, M, N, O, P, Q, R, S, T, U, V, W, X, Y, Z, AA, AB, AC, AD, AE, AF, AG, AH, AI, AJ, AK, AL, AM, AN, AO, AP, AQ, AR, AS, AT, AU, AV, AW, AX, AY, AZ, BA, BB, BC, BD, BE, BF, BG, BH, BI, BJ, BK, BL, BM, BN, BO, BP, BQ, BR, BS, BT, BU, BV, BW, BX, BY, BZ, CA, CB, CC, CD, CE, CF, CG, CH, CI, CJ, CK, CL, CM, CN, CO, CP, CQ, CR, CS, CT, CU, CV, CW, CX, CY, CZ, DA, DB, DC, DD, DE, DF, DG, DH, DI, DJ, DK, DL, DM, DN, DO, DP, DQ, DR, DS, DT, DU, DV, DW, DX, DY, DZ, EA, EB, EC, ED, EE, EF, EG, EH, EI, EJ, EK, EL, EM, EN, EO, EP, EQ, ER, ES, ET, EU, EV, EW, EX, EY, EZ, FA, FB, FC, FD, FE, FF, FG, FH, FI, FJ, FK, FL, FM, FN, FO, FP, FQ, FR, FS, FT, FU, FV, FW, FX, FY, FZ, GA, GB, GC, GD, GE, GF, GG, GH, GI, GJ, GK, GL, GM, GN, GO, GP, GQ, GR, GS, GT, GU, GV, GW, GX, GY, GZ, HA, HB, HC, HD, HE, HF, HG, HH, HI, HJ, HK, HL, HM, HN, HO, HP, HQ, HR, HS, HT, HU, HV, HW, HX, HY, HZ, IA, IB, IC, ID, IE, IF, IG, IH, II, IJ, IK, IL, IM, IN, IO, IP, IQ, IR, IS, IT, IU, IV, IW, IX, IY, IZ, JA, JB, JC, JD, JE, JF, JG, JH, JI, JJ, JK, JL, JM, JN, JO, JP, JQ, JR, JS, JT, JU, JV, JW, JX, JY, JZ, KA, KB, KC, KD, KE, KF, KG, KH, KI, KJ, KK, KL, KM, KN, KO, KP, KQ, KR, KS, KT, KU, KV, KW, KX, KY, KZ, LA, LB, LC, LD, LE, LF, LG, LH, LI, LJ, LK, LL, LM, LN, LO, LP, LQ, LR, LS, LT, LU, LV, LW, LX, LY, LZ, MA, MB, MC, MD, ME, MF, MG, MH, MI, MJ, MK, ML, MM, MN, MO, MP, MQ, MR, MS, MT, MU, MV, MW, MX, MY, MZ, NA, NB, NC, ND, NE, NF, NG, NH, NI, NJ, NK, NL, NM, NN, NO, NP, NQ, NR, NS, NT, NU, NV, NW, NX, NY, NZ, OA, OB, OC, OD, OE, OF, OG, OH, OI, OJ, OK, OL, OM, ON, OO, OP, OQ, OR, OS, OT, OU, OV, OW, OX, OY, OZ, PA, PB, PC, PD, PE, PF, PG, PH, PI, PJ, PK, PL, PM, PN, PO, PP, PQ, PR, PS, PT, PU, PV, PW, PX, PY, PZ, QA, QB, QC, QD, QE, QF, QG, QH, QI, QJ, QK, QL, QM, QN, QO, QP, QQ, QR, QS, QT, QU, QV, QW, QX, QY, QZ, RA, RB, RC, RD, RE, RF, RG, RH, RI, RJ, RK, RL, RM, RN, RO, RP, RQ, RR, RS, RT, RU, RV, RW, RX, RY, RZ, SA, SB, SC, SD, SE, SF, SG, SH, SI, SJ, SK, SL, SM, SN, SO, SP, SQ, SR, SS, ST, SU, SV, SW, SX, SY, SZ, TA, TB, TC, TD, TE, TF, TG, TH, TI, TJ, TK, TL, TM, TN, TO, TP, TQ, TR, TS, TT, TU, TV, TW, TX, TY, TZ, UA, UB, UC, UD, UE, UF, UG, UH, UI, UJ, UK, UL, UM, UN, UO, UP, UQ, UR, US, UT, UY, UZ, VA, VB, VC, VD, VE, VF, VG, VH, VI, VJ, VK, VL, VM, VN, VO, VP, VQ, VR, VS, VT, VU, VV, VW, VX, VY, VZ, WA, WB, WC, WD, WE, WF, WG, WH, WI, WJ, WK, WL, WM, WN, WO, WP, WQ, WR, WS, WT, WU, WV, WW, WX, WY, WZ, XA, XB, XC, XD, XE, XF, XG, XH, XI, XJ, XK, XL, XM, XN, XO, XP, XQ, XR, XS, XT, XU, XV, XW, XX, XY, XZ, YA, YB, YC, YD, YE, YF, YG, YH, YI, YJ, YK, YL, YM, YN, YO, YP, YQ, YR, YS, YT, YU, YV, YW, YX, YY, YZ, ZA, ZB, ZC, ZD, ZE, ZF, ZG, ZH, ZI, ZJ, ZK, ZL, ZM, ZN, ZO, ZP, ZQ, ZR, ZS, ZT, ZU, ZV, ZW, ZX, ZY, ZZ.

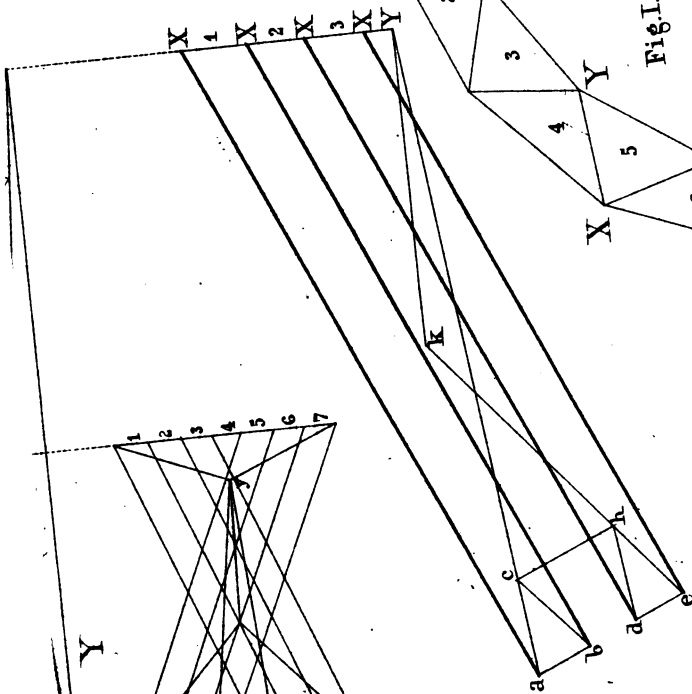
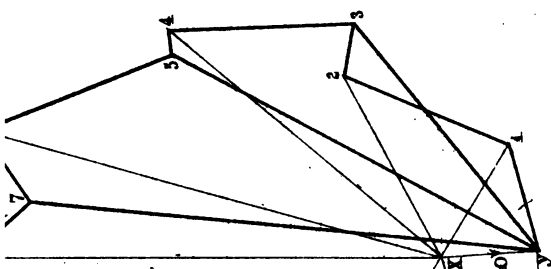


Fig I (Art 1 App.)

UNIV. OF
CALIFORNIA

Fig.5 (d).

Fig.5 (c).
(Art.13).

Fig.5 (e).

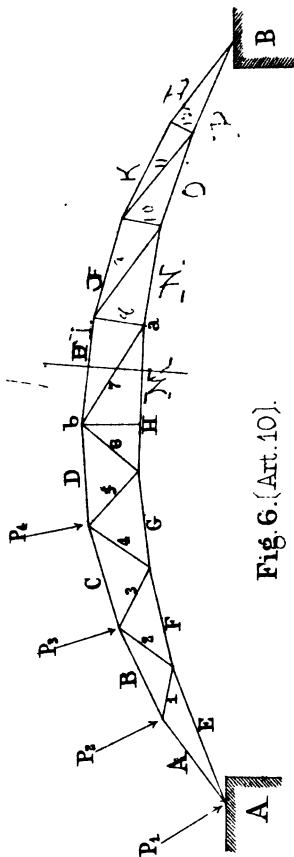
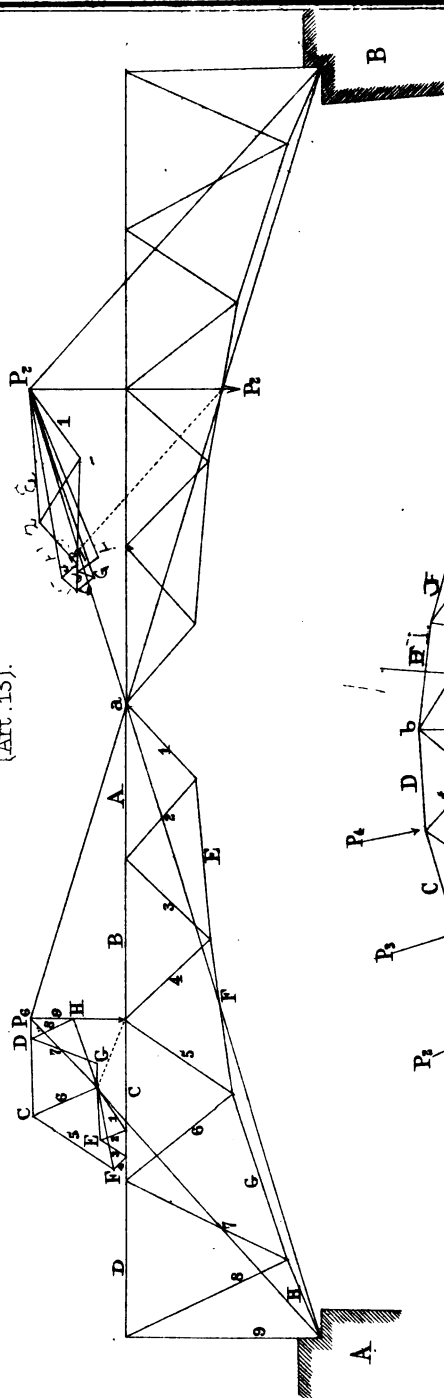
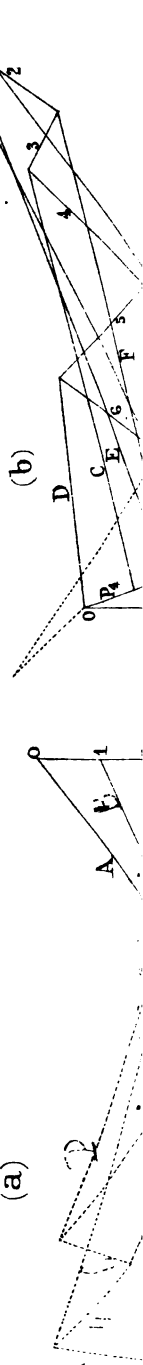


Fig.6. (Art.10).

(a)

(b)



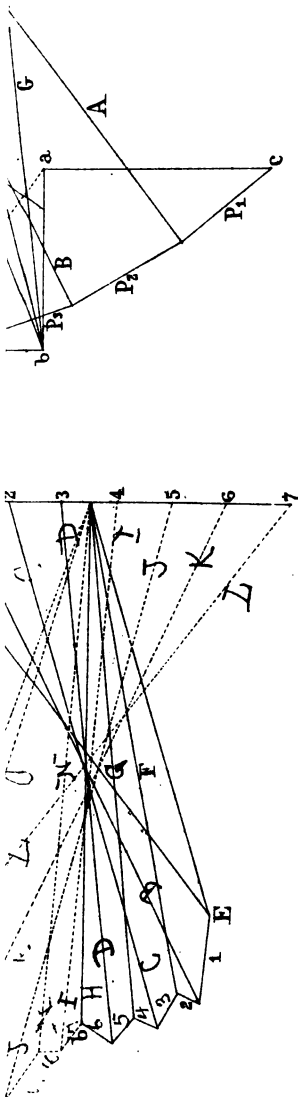
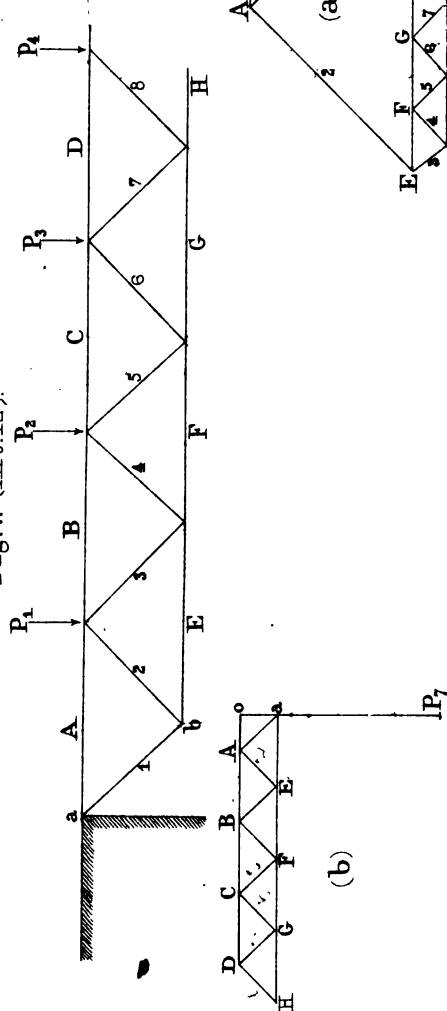


Fig. 7. (Art. 12).



Digitized by Google



Fig.V.(Art.7.App.)

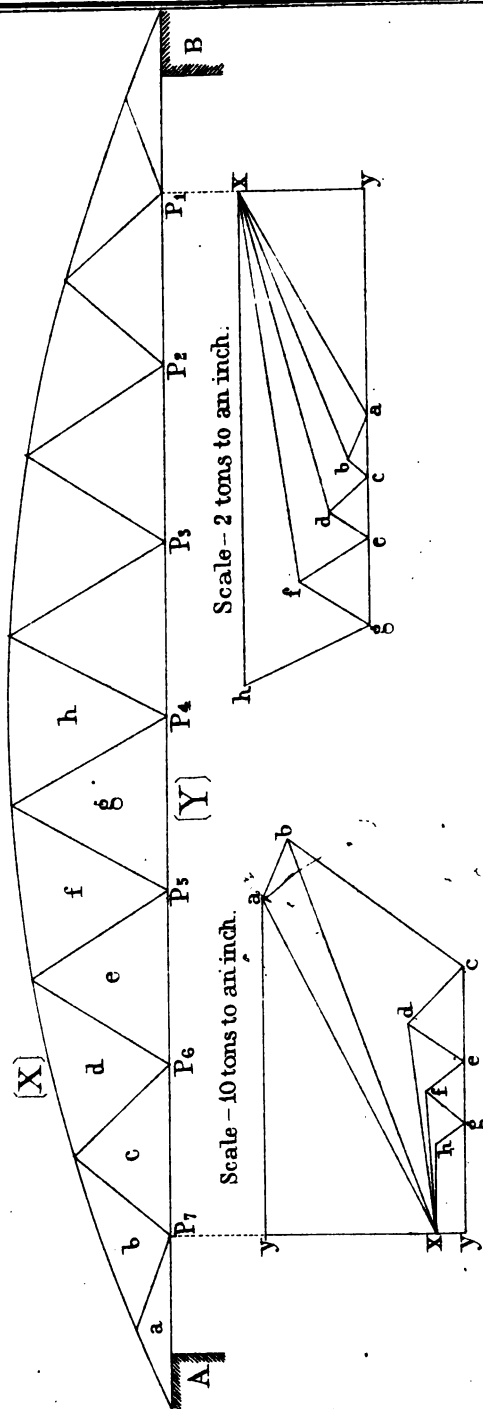


Fig.VII.(Art.10.App.)

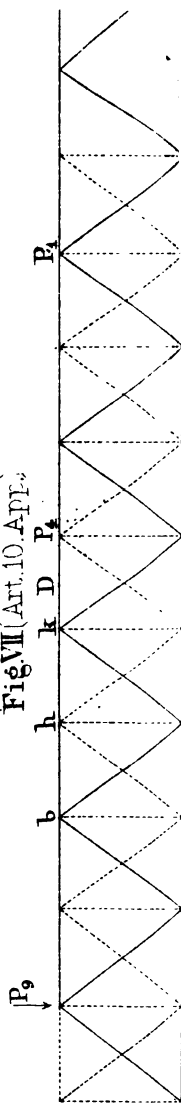
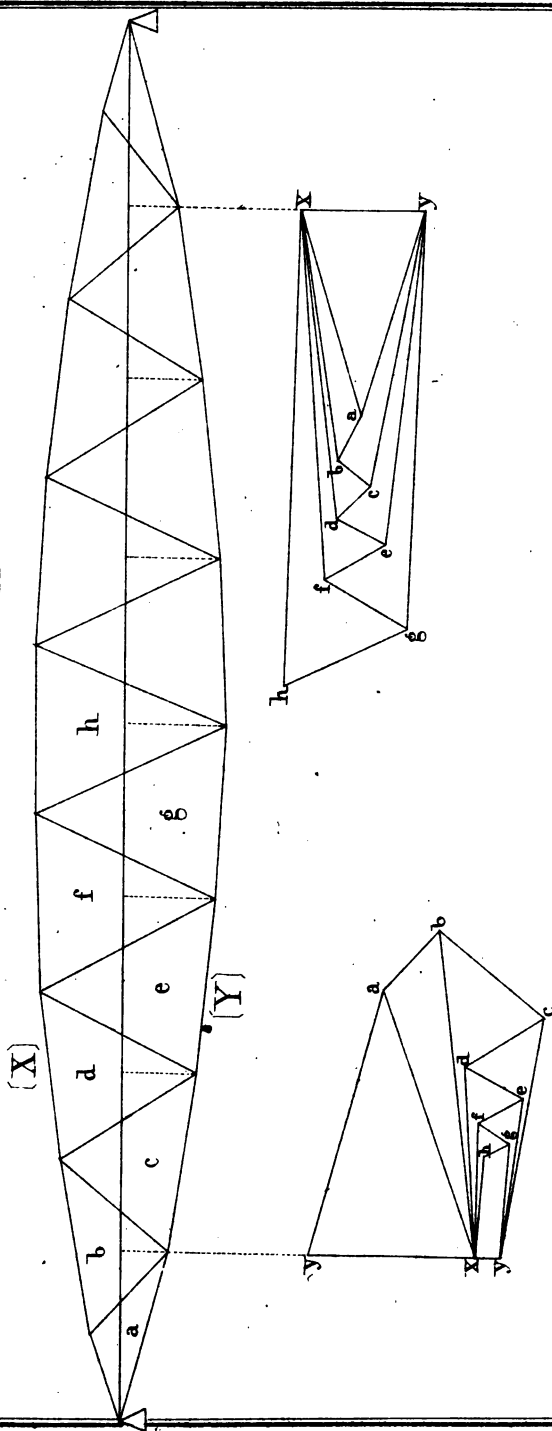


Fig.VI.(Art.9.App.)



Digitized by Google

卷之八

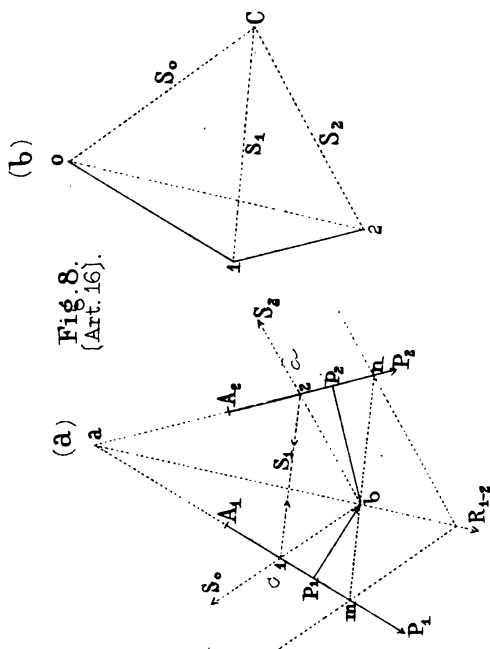


Fig. 8.
(Art. 16).

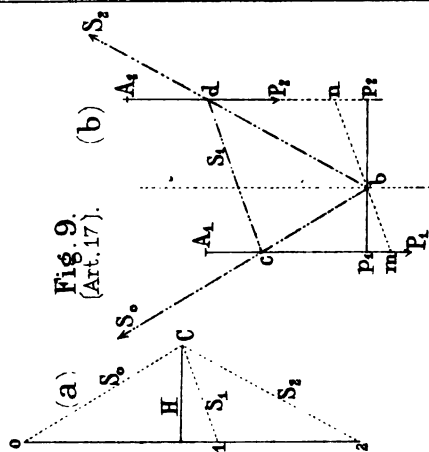


Fig. 9.
(Art. 17).

Fig. 10. (Art. 17).

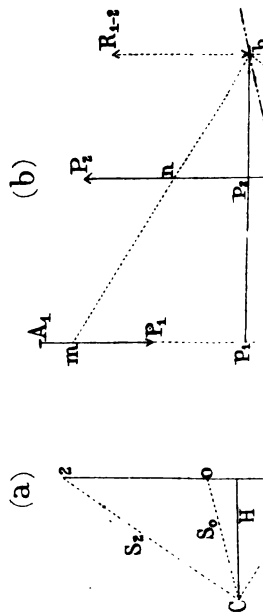
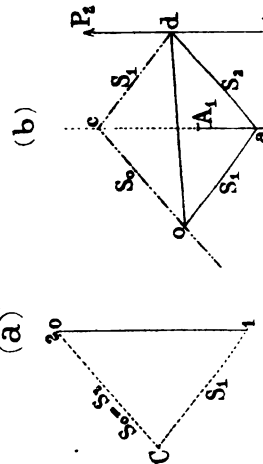


Fig. 11. (Art. 20).



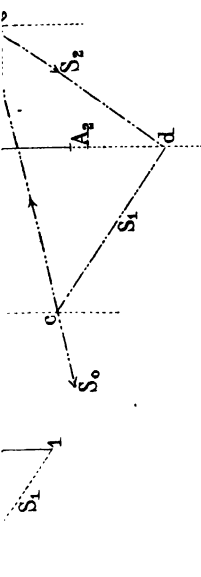
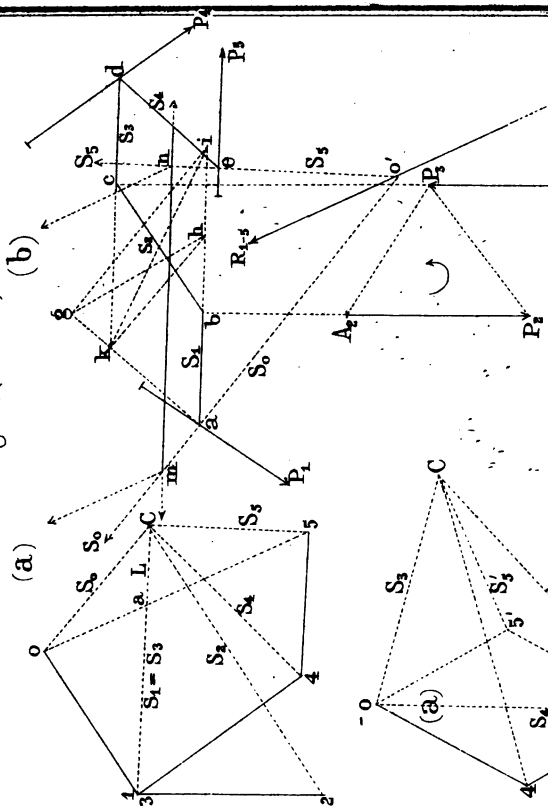


Fig. 12. (Art. 22).



(b)

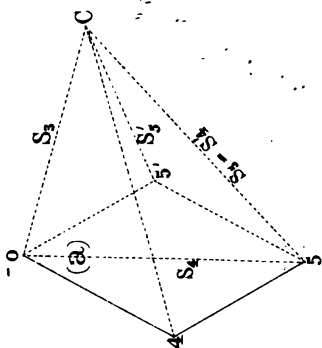
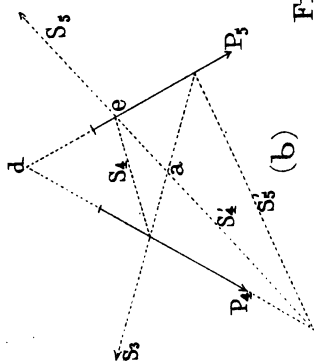


Fig. 13. (Art. 24).

(b)

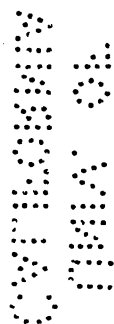
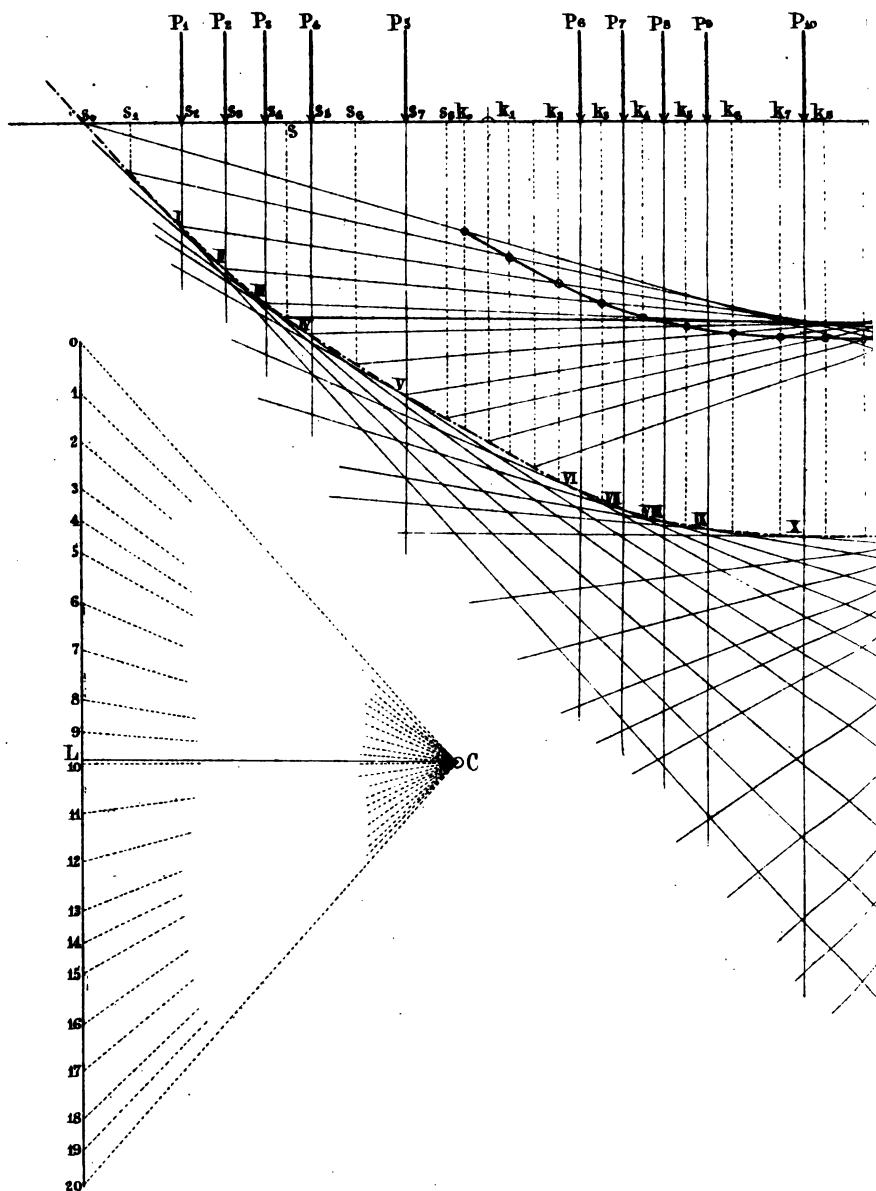
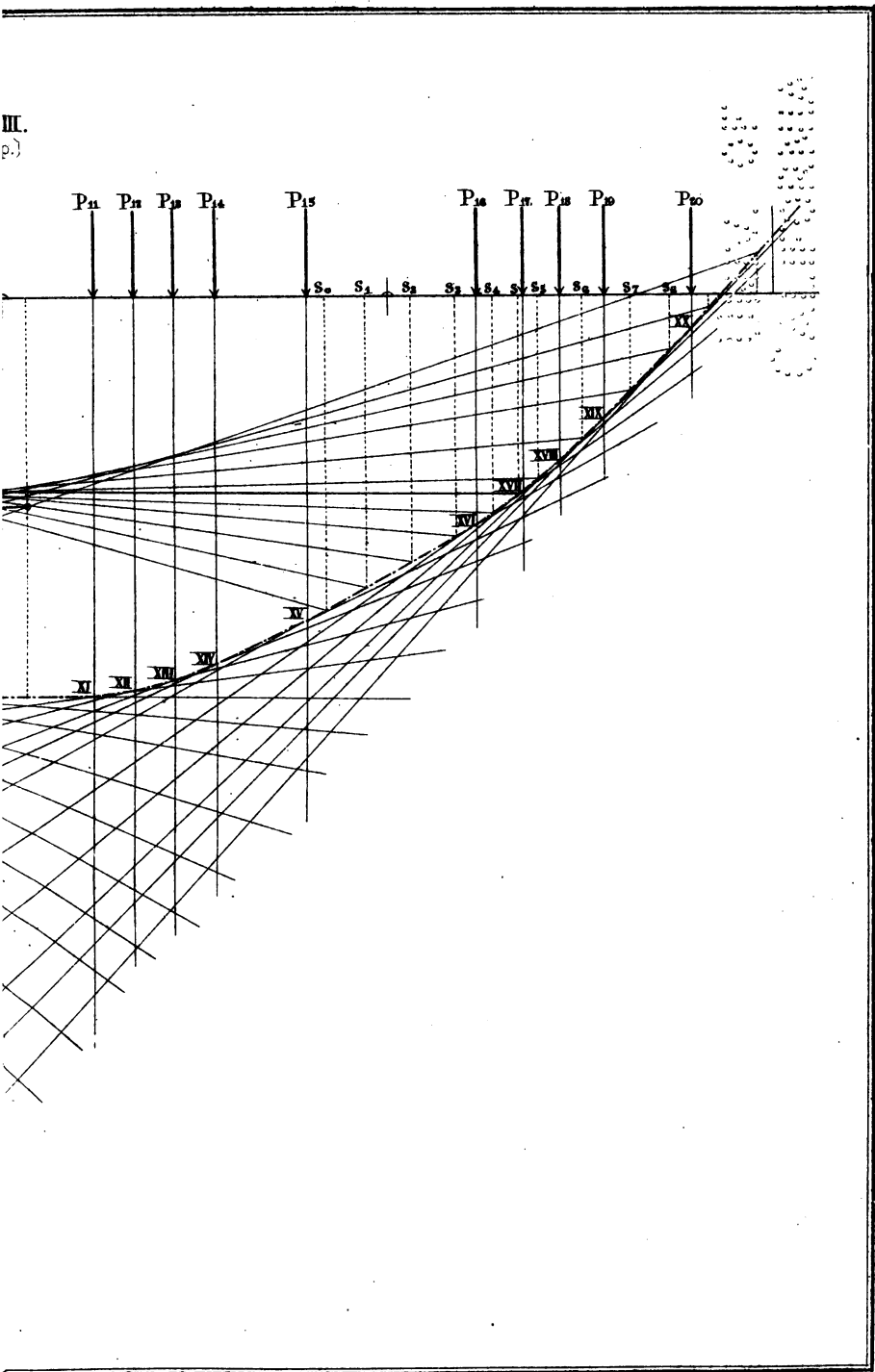


Fig
(Art. 154)





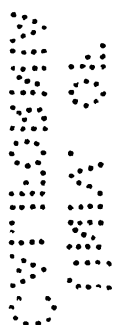


Fig. 14. (Art. 26).

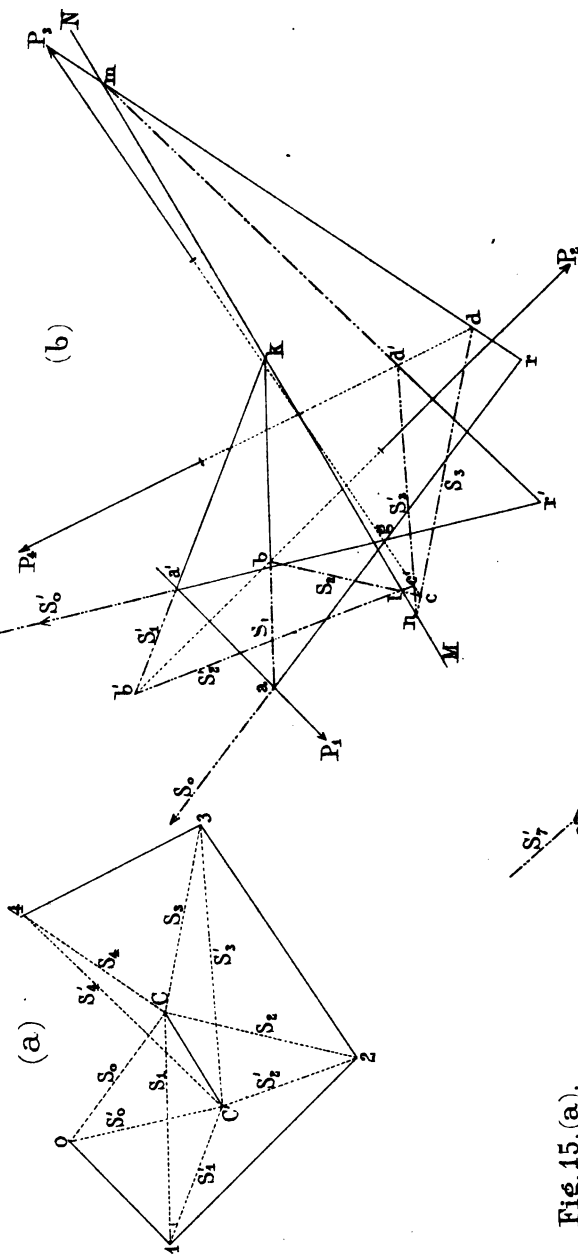


Fig. 15. (a).

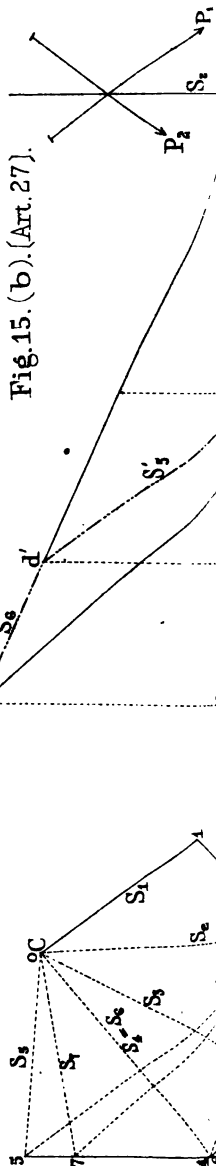


Fig. 15. (b). (Art. 27).



Fig IX (Art. 16 App.)

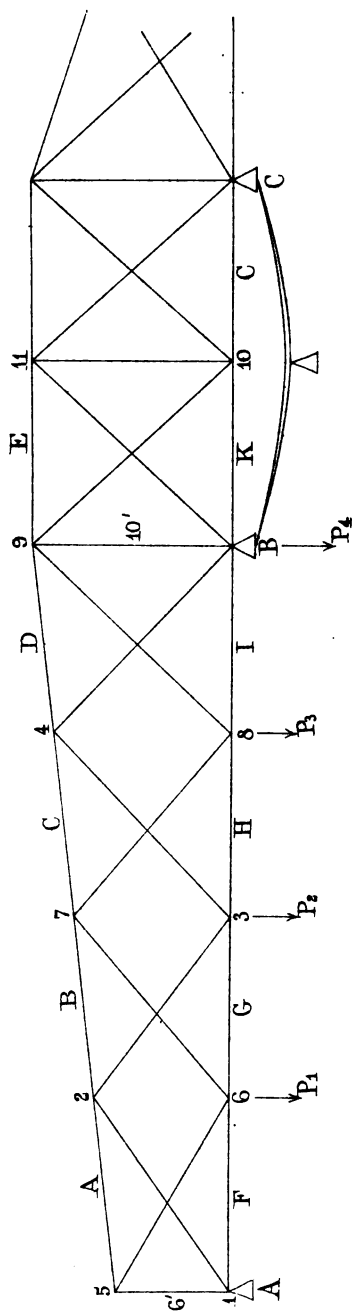


FIG. A. (AT 10.000)

175 ft.

170.6

23.4

44.6

25.

4.5

10.5

11.3

12.7

13.5

14.7

15.5

16.5

17.5

18.5

19.5

20.5

21.5

22.5

23.5

24.5

25.5

26.5

27.5

28.5

29.5

30.5

31.5

32.5

33.5

34.5

35.5

36.5

37.5

38.5

39.5

40.5

41.5

42.5

43.5

44.5

45.5

46.5

47.5

48.5

49.5

50.5

51.5

52.5

53.5

54.5

55.5

56.5

57.5

58.5

59.5

60.5

61.5

62.5

63.5

64.5

65.5

66.5

67.5

68.5

69.5

70.5

71.5

72.5

73.5

74.5

75.5

76.5

77.5

78.5

79.5

80.5

81.5

82.5

83.5

84.5

85.5

86.5

87.5

88.5

89.5

90.5

91.5

92.5

93.5

94.5

95.5

96.5

97.5

98.5

99.5

100.5

101.5

102.5

103.5

104.5

105.5

106.5

107.5

108.5

109.5

110.5

111.5

112.5

113.5

114.5

115.5

116.5

117.5

118.5

119.5

120.5

121.5

122.5

123.5

124.5

125.5

126.5

127.5

128.5

129.5

130.5

131.5

132.5

133.5

134.5

135.5

136.5

137.5

138.5

139.5

140.5

141.5

142.5

143.5

144.5

145.5

146.5

147.5

148.5

149.5

150.5

151.5

152.5

153.5

154.5

155.5

156.5

157.5

158.5

159.5

160.5

161.5

162.5

163.5

164.5

165.5

166.5

167.5

168.5

169.5

170.5

171.5

172.5

173.5

174.5

175.5

176.5

177.5

178.5

179.5

180.5

181.5

182.5

183.5

184.5

185.5

186.5

187.5

188.5

189.5

190.5

191.5

192.5

193.5

194.5

195.5

196.5

197.5

198.5

199.5

200.5

201.5

202.5

203.5

204.5

205.5

206.5

207.5

208.5

209.5

210.5

211.5

212.5

213.5

214.5

215.5

216.5

217.5

218.5

219.5

220.5

221.5

222.5

223.5

224.5

225.5

226.5

227.5

228.5

229.5

230.5

231.5

232.5

233.5

234.5

235.5

236.5

237.5

238.5

239.5

240.5

241.5

242.5

243.5

244.5

245.5

246.5

247.5

248.5

249.5

250.5

251.5

252.5

253.5

254.5

255.5

256.5

257.5

258.5

259.5

260.5

261.5

262.5

263.5

264.5

265.5

266.5

267.5

268.5

269.5

270.5

271.5

272.5

273.5

274.5

275.5

276.5

277.5

278.5

279.5

280.5

281.5

282.5

283.5

284.5

285.5

286.5

287.5

288.5

289.5

290.5

291.5

292.5

293.5

294.5

295.5

296.5

297.5

298.5

299.5

300.5

301.5

302.5

303.5

304.5

305.5

306.5

307.5

308.5

309.5

310.5

311.5

312.5

313.5

314.5

315.5

316.5

317.5

318.5

319.5

320.5

321.5

322.5

323.5

324.5

325.5

326.5

327.5

328.5

329.5

330.5

331.5

332.5

333.5

334.5

335.5

336.5

337.5

338.5

339.5

340.5

341.5

342.5

343.5

344.5

345.5

346.5

347.5

348.5

349.5

350.5

351.5

352.5

353.5

354.5

355.5

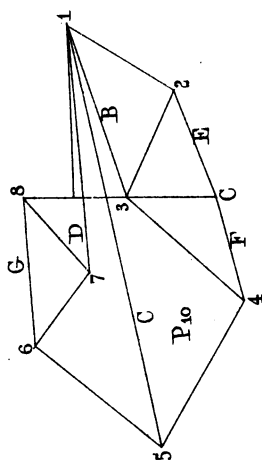
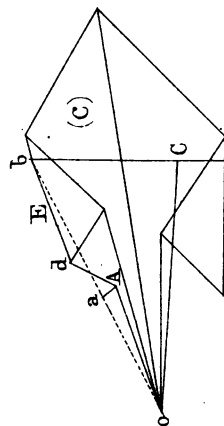
356.5

357.5

358.5

359.5

360.5</



卷之六

Fig 17. (Art. 32).

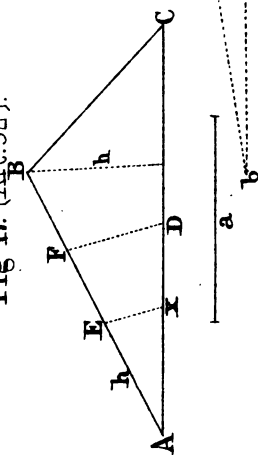


Fig. 18. (Art. 33).

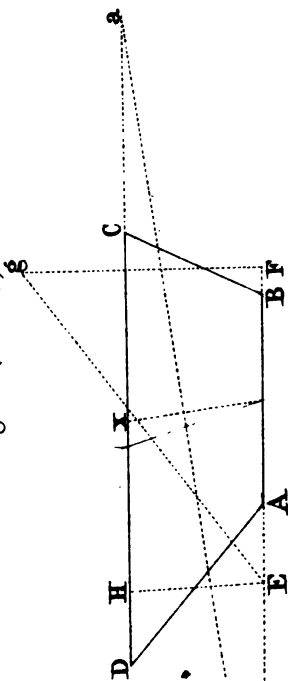


Fig.18.(b).(Art.33).

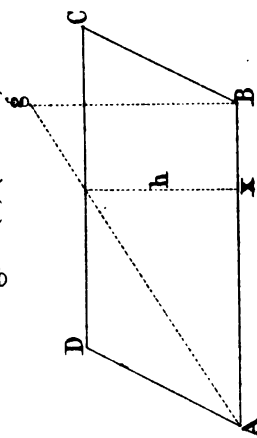


Fig.18.(c).(Art.34).

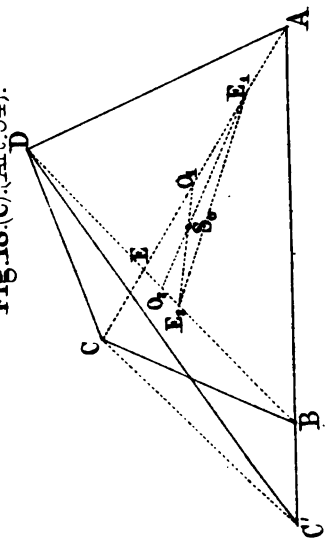


Fig. 19. [Art 36].

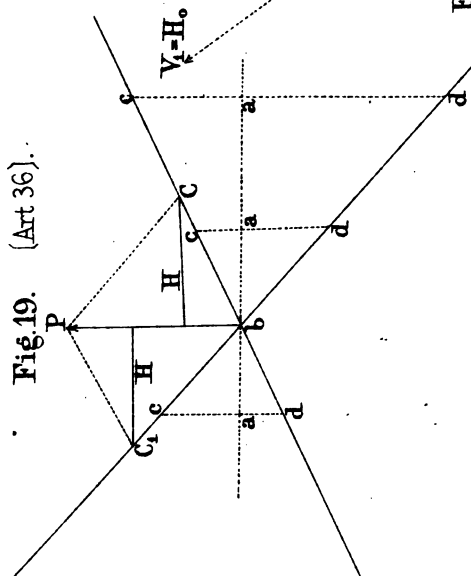


Fig. 19.(a). (Art. 37).

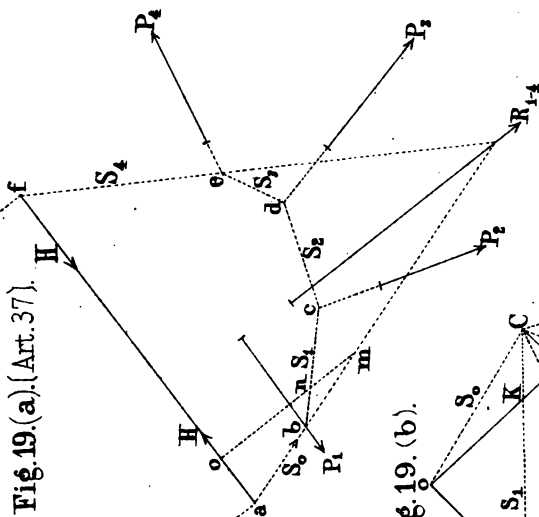
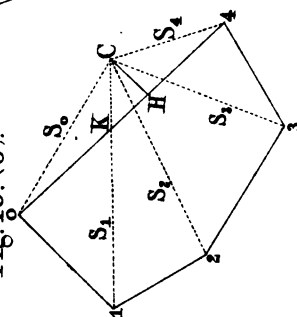
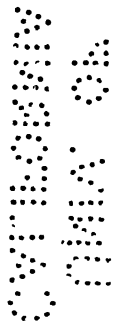
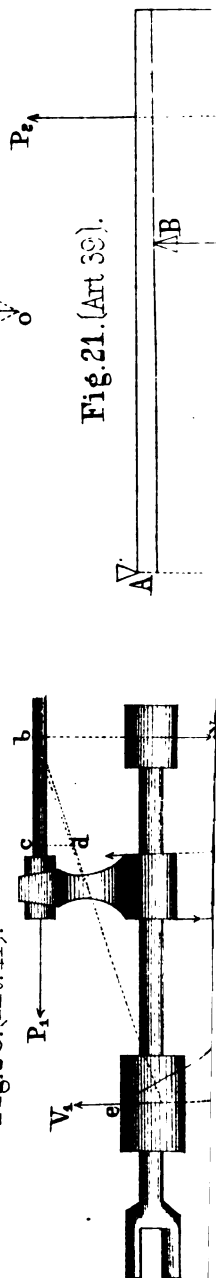
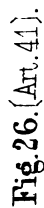
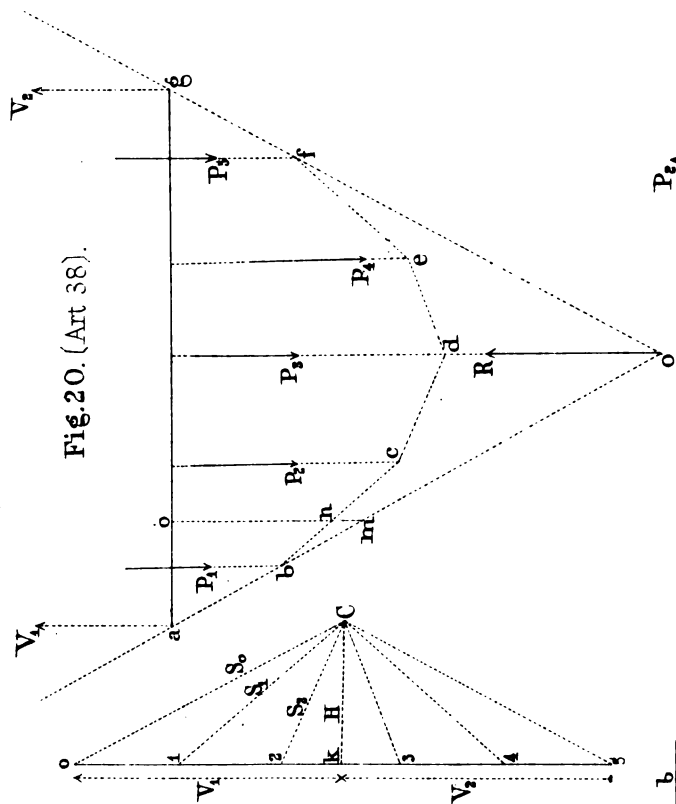
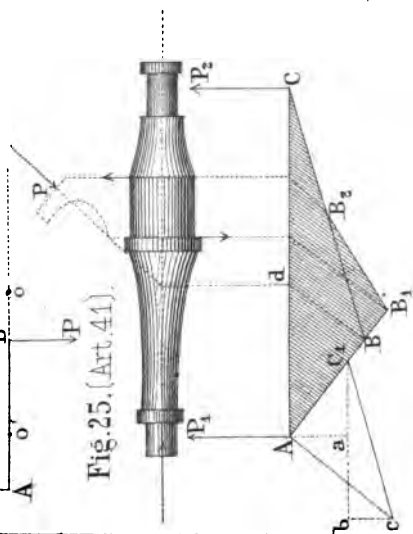
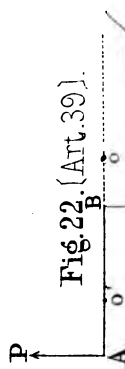


Fig. 19. (b).







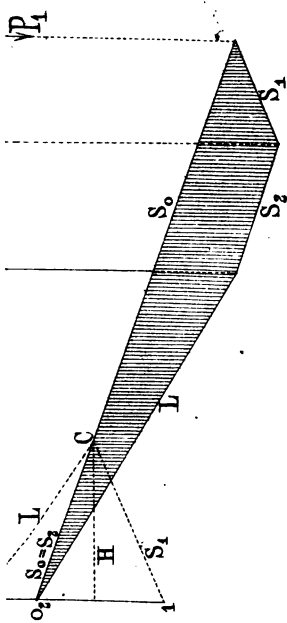


Fig. 23. [Art 39].

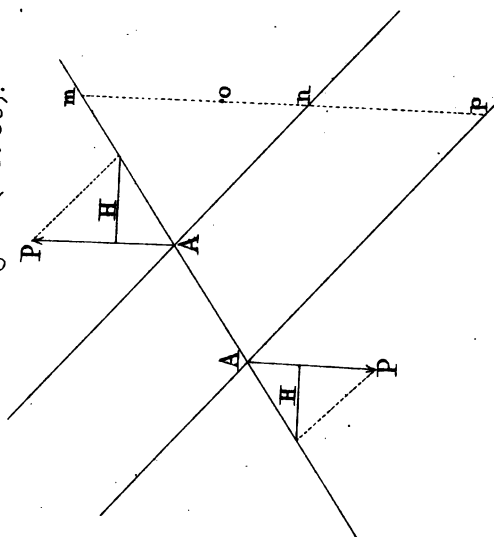
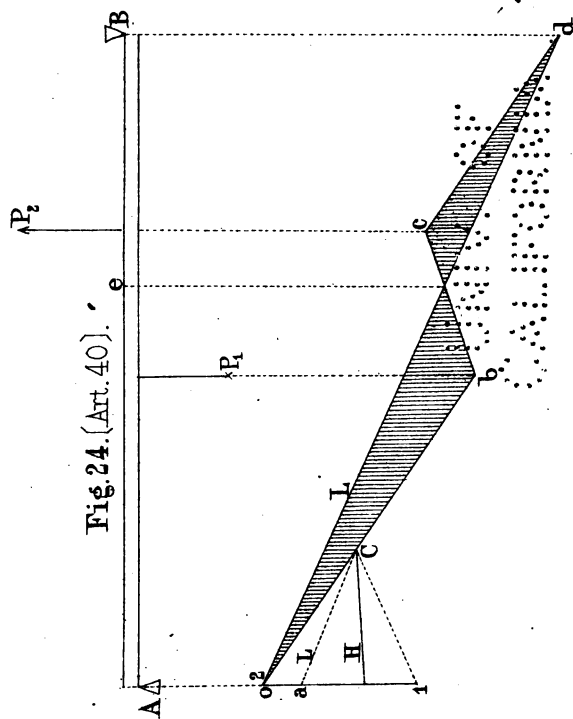


Fig. 24. [Art. 40].



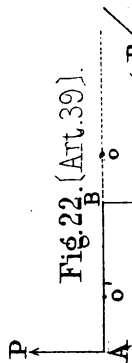


Fig. 22. (Art. 39).

Fig. 25. (Art. 41).

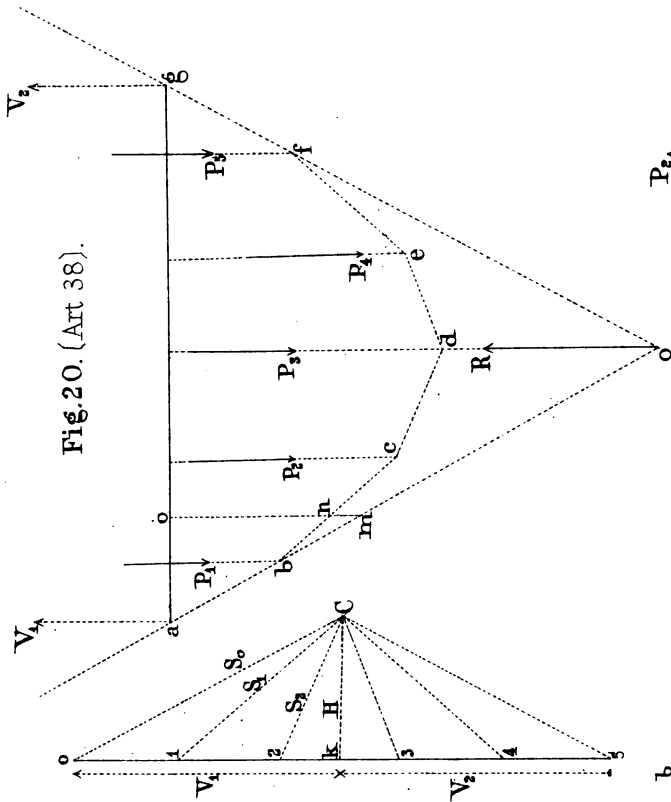
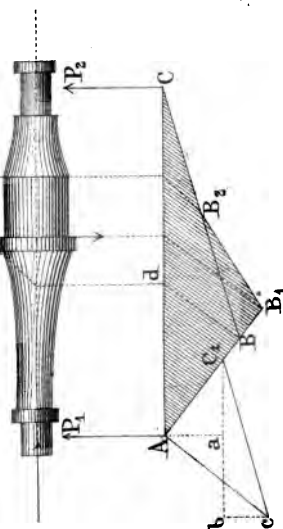


Fig. 20. (Art. 38).

Fig. 26. (Art. 41).

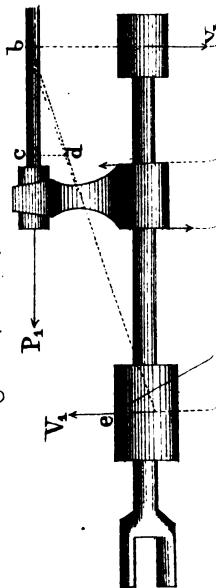
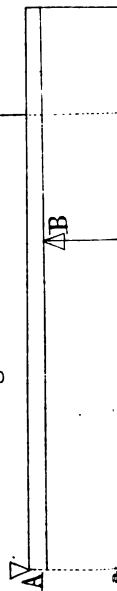


Fig. 21. (Art. 39).



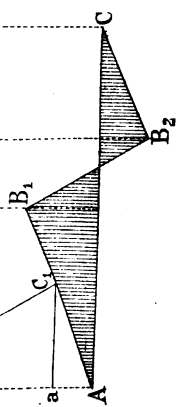


Fig. 23. (Art 39).

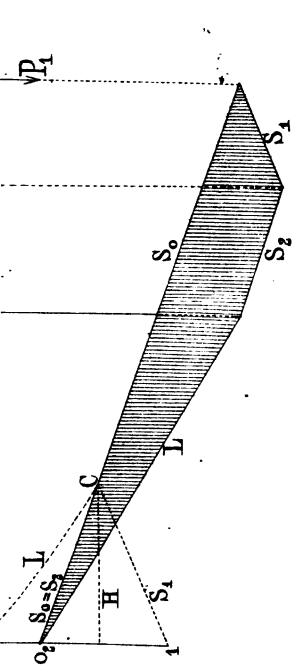
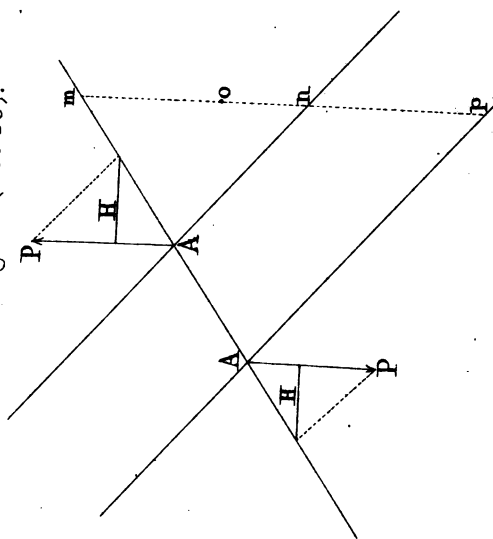
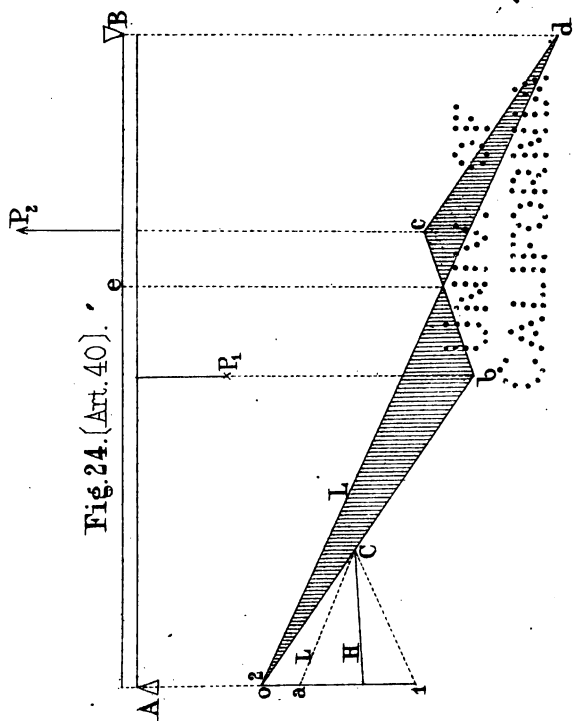
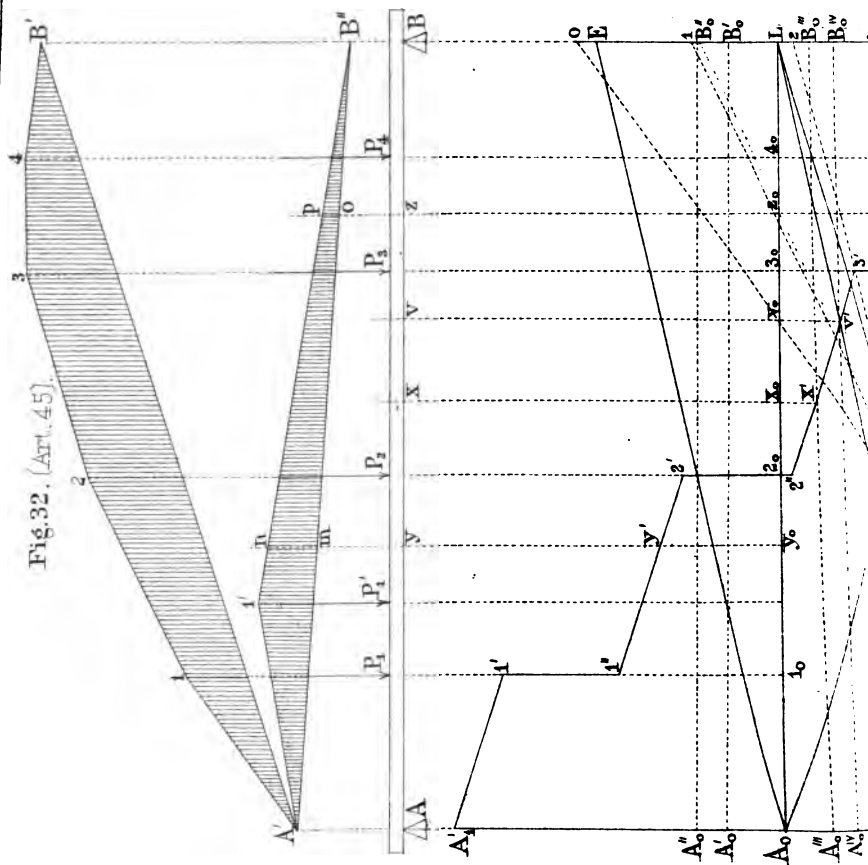


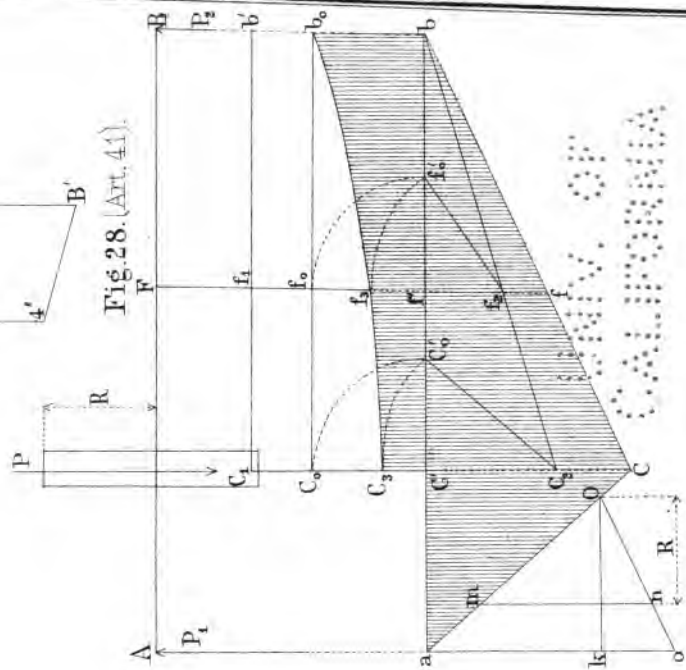
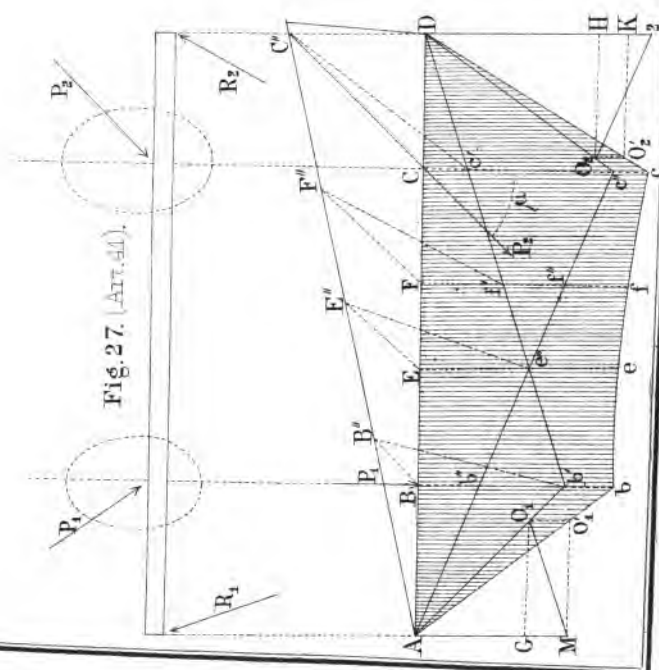
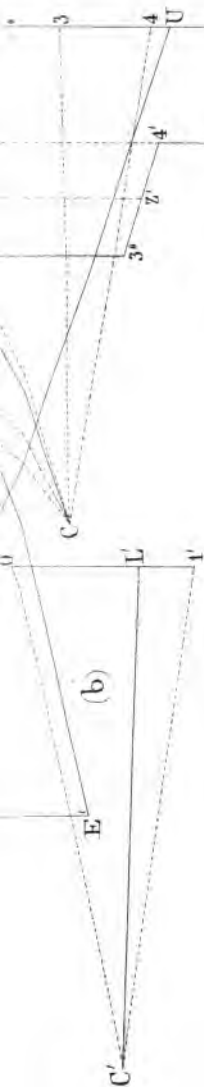
Fig. 24. (Art. 40).

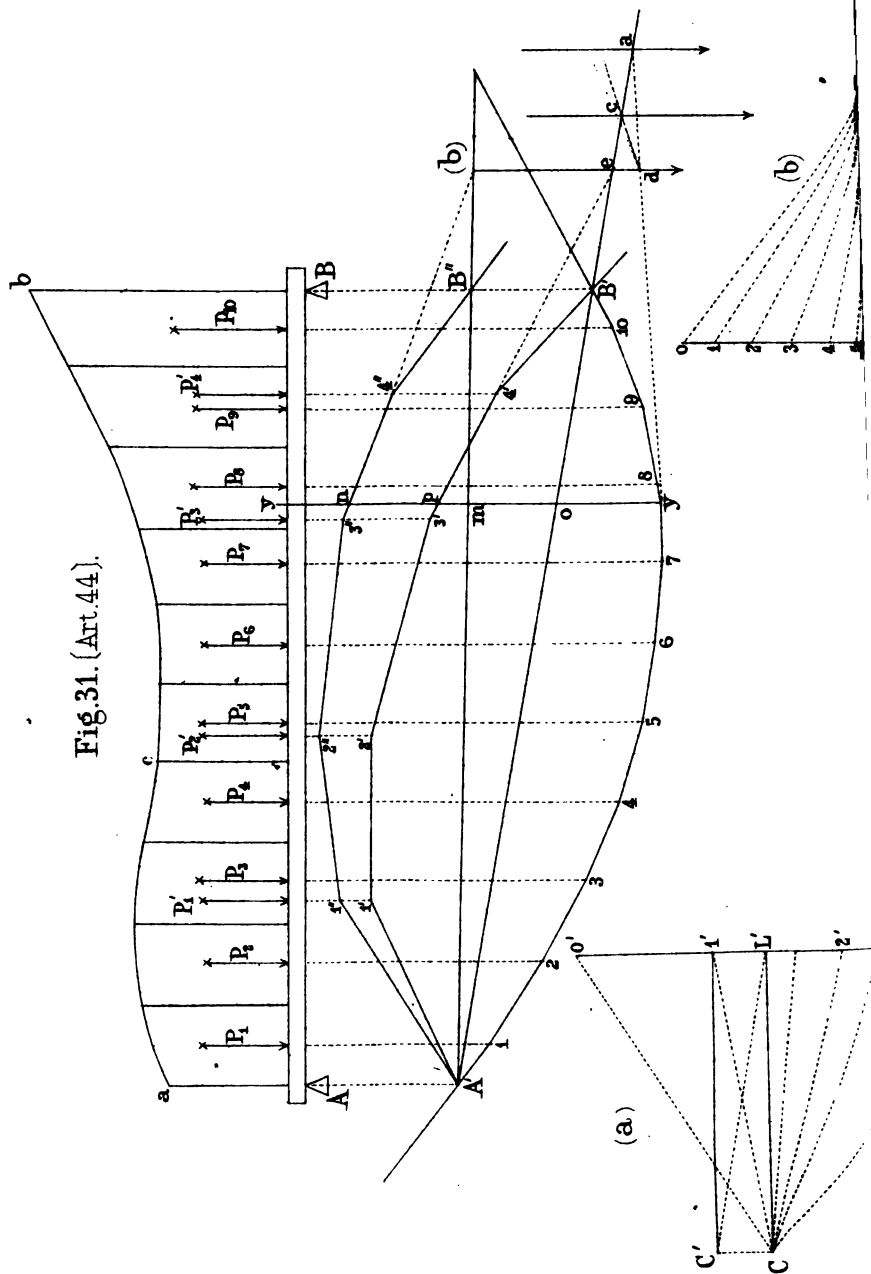


1880

Fig. 32. [Att. 45].







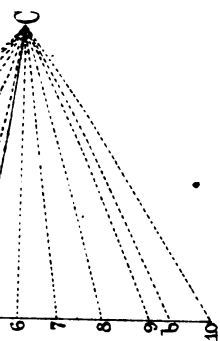


Fig. 29. (Art. 41).

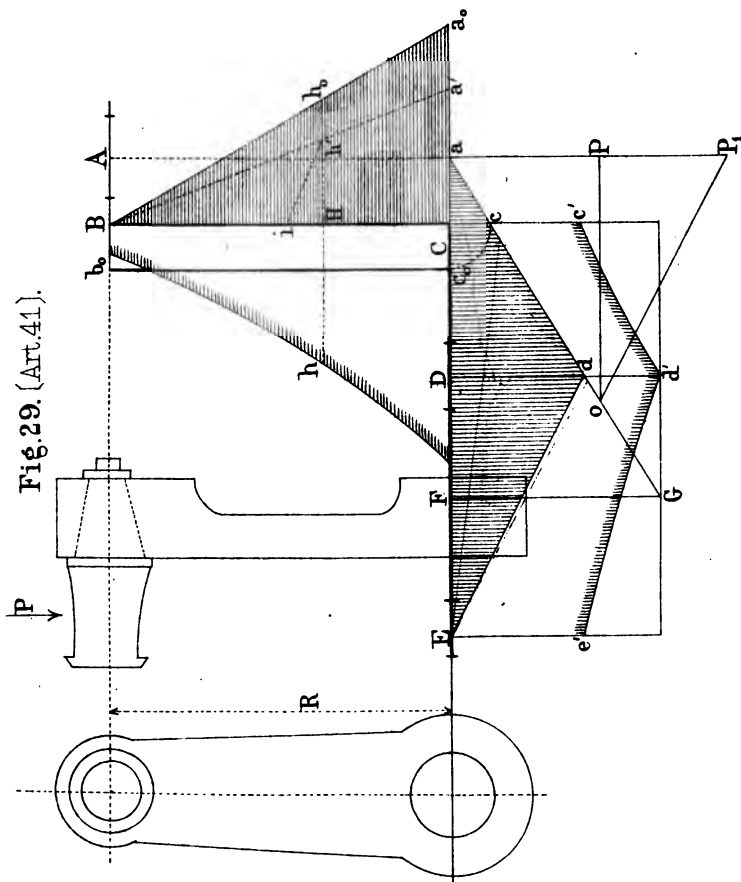
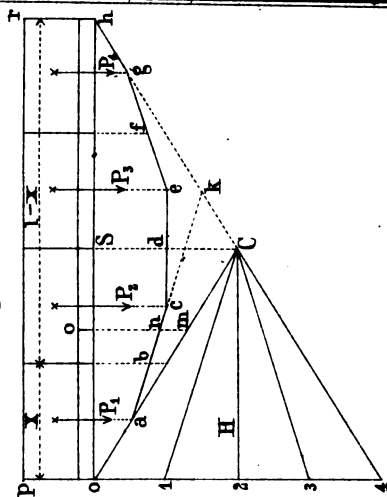


Fig. 30. (Art. 43).

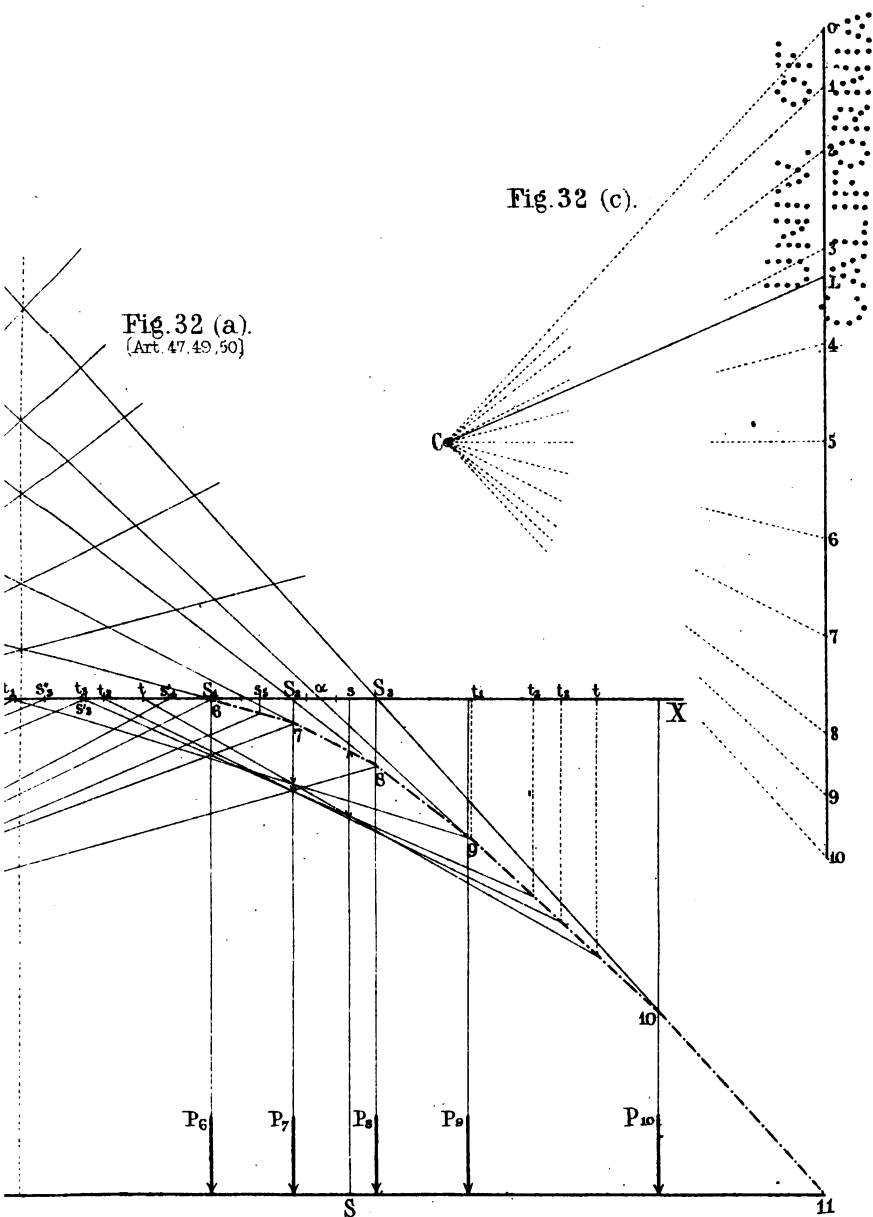


Digitized by Google

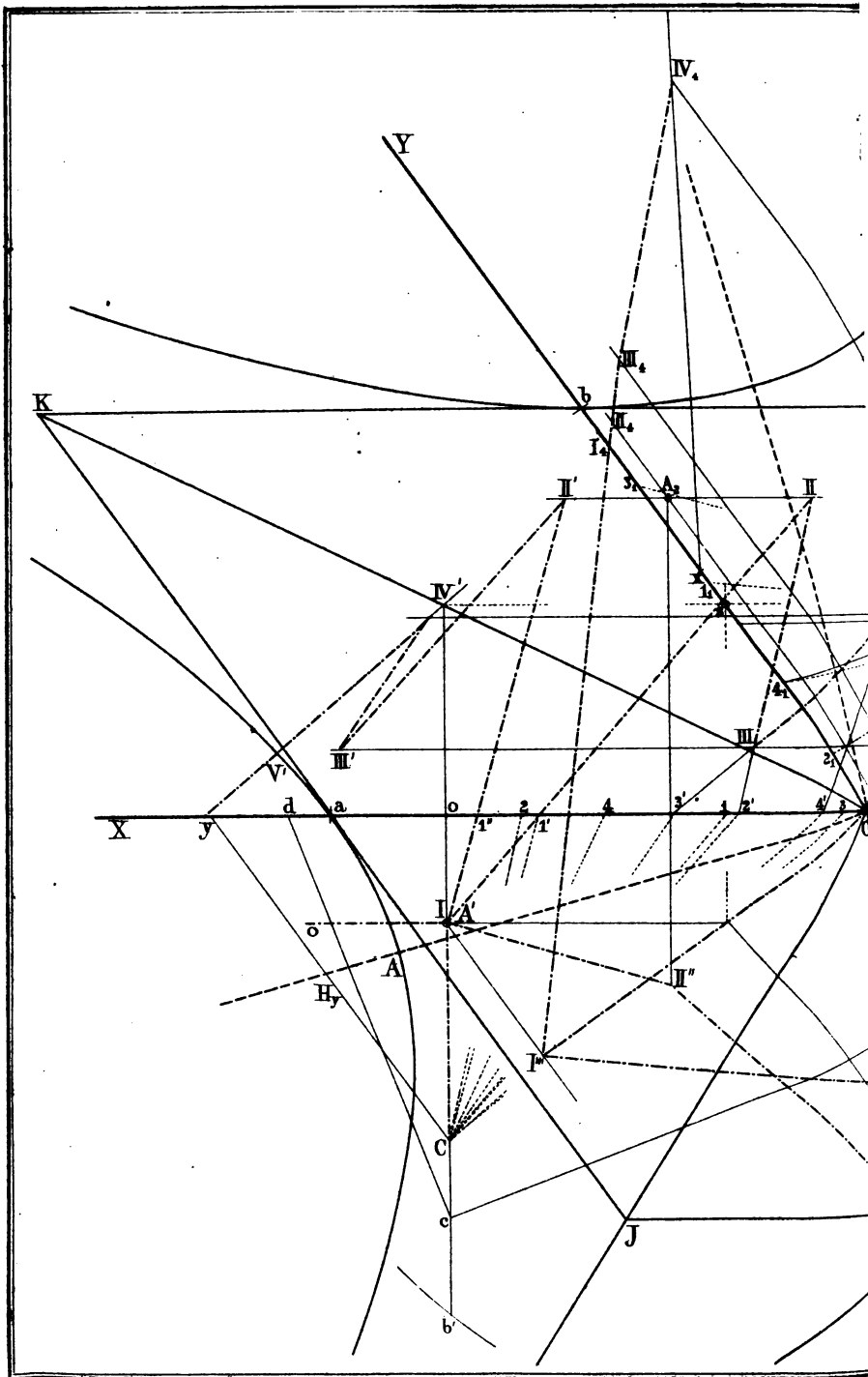
1853

[Art. 48.]





3456789



Pl.10. Fig.34.

Pl.10. Fig.34.



3000

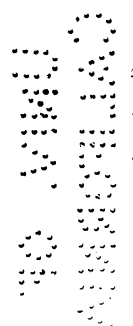


Fig.33. (Art.55).

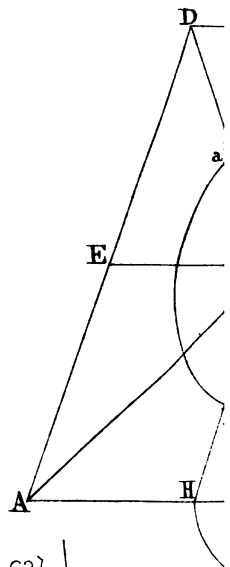
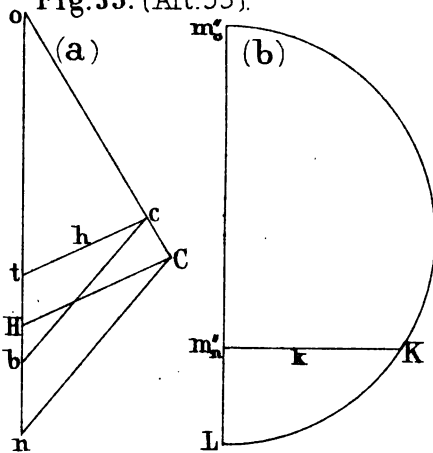


Fig.35. (Art.60).

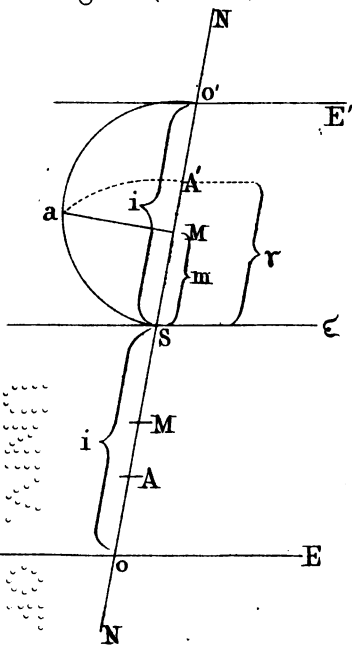


Fig.39. (Art.62).

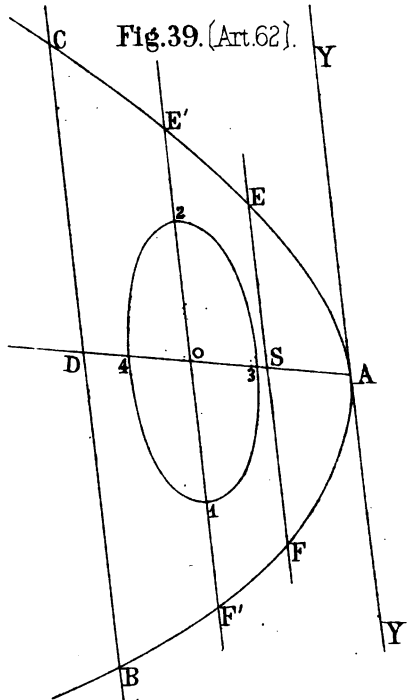


Fig. 36. (Art. 62).

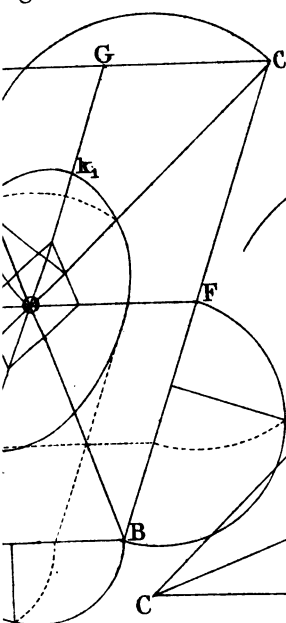


Fig. 37. (Art. 62).

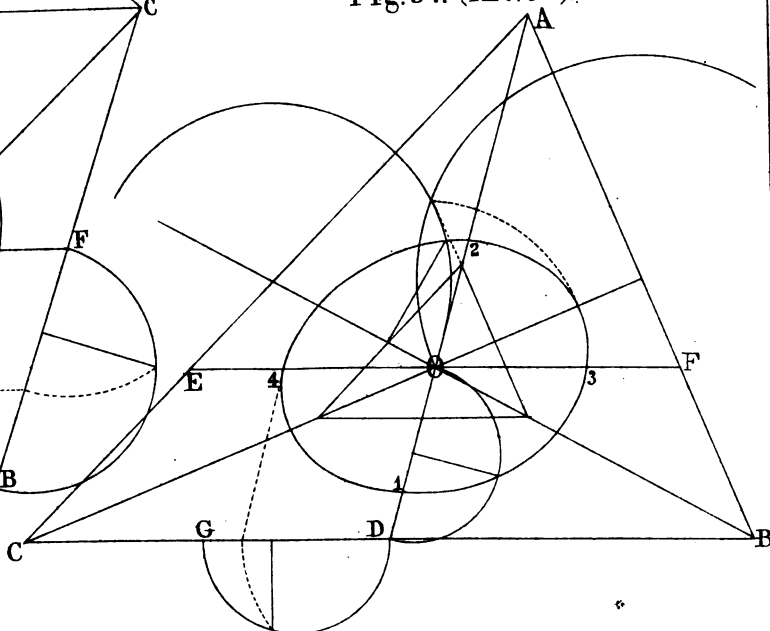


Fig. 38. (Art. 62).

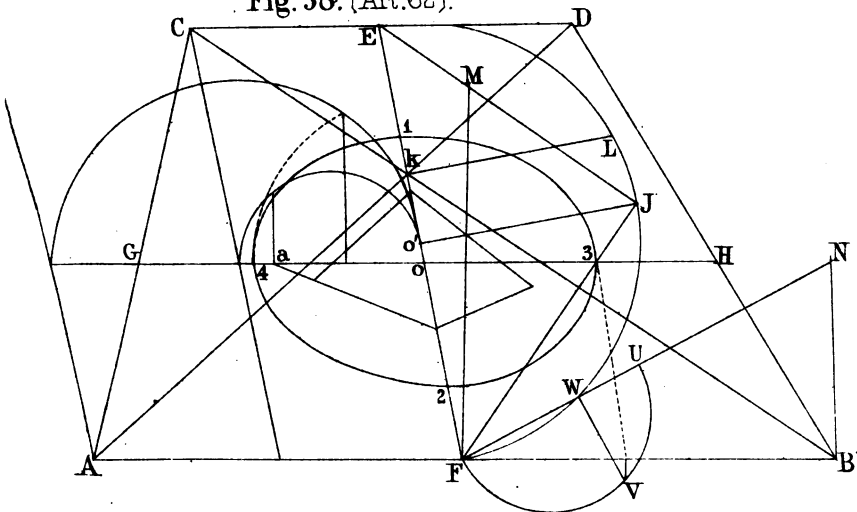
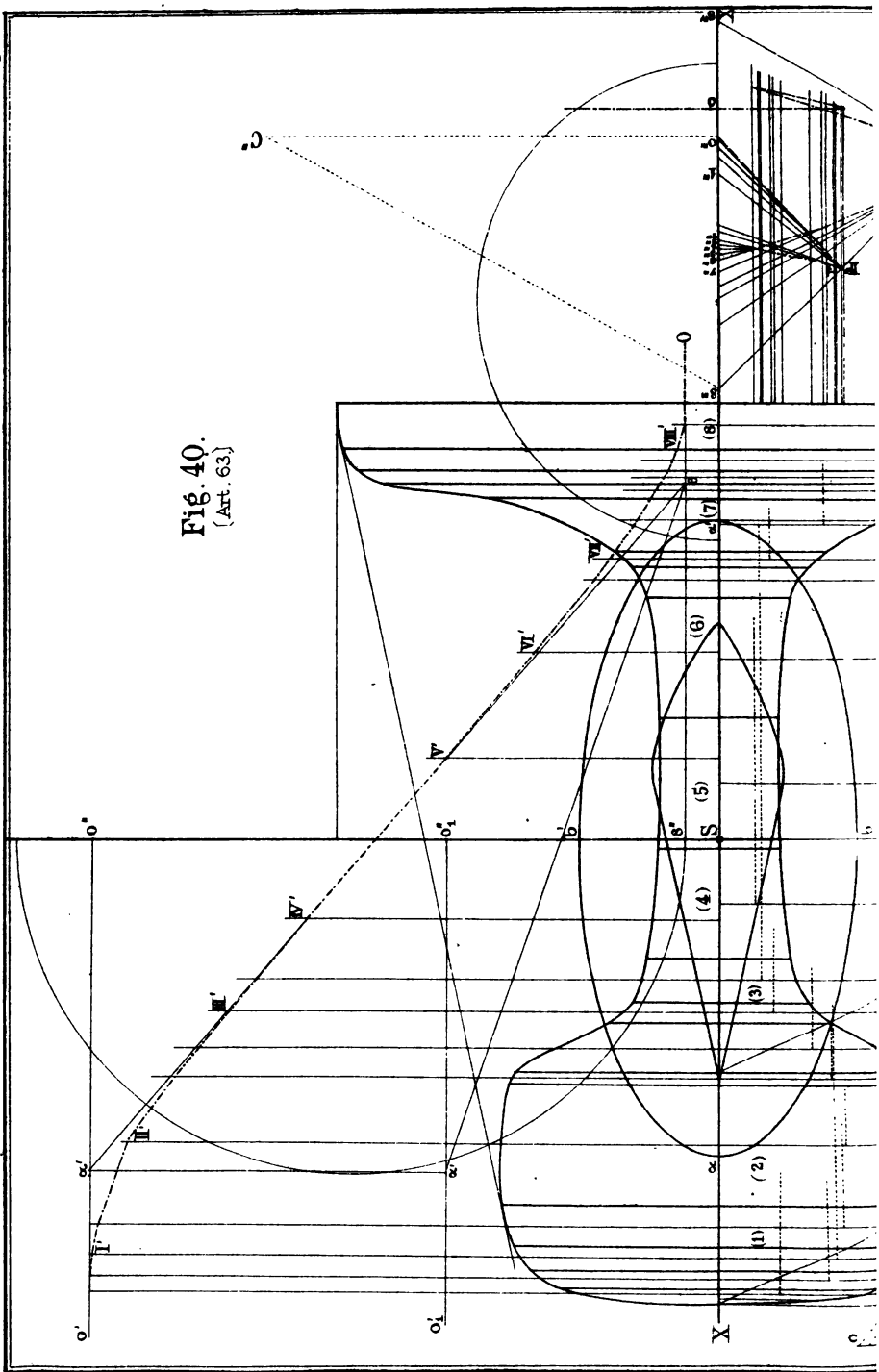
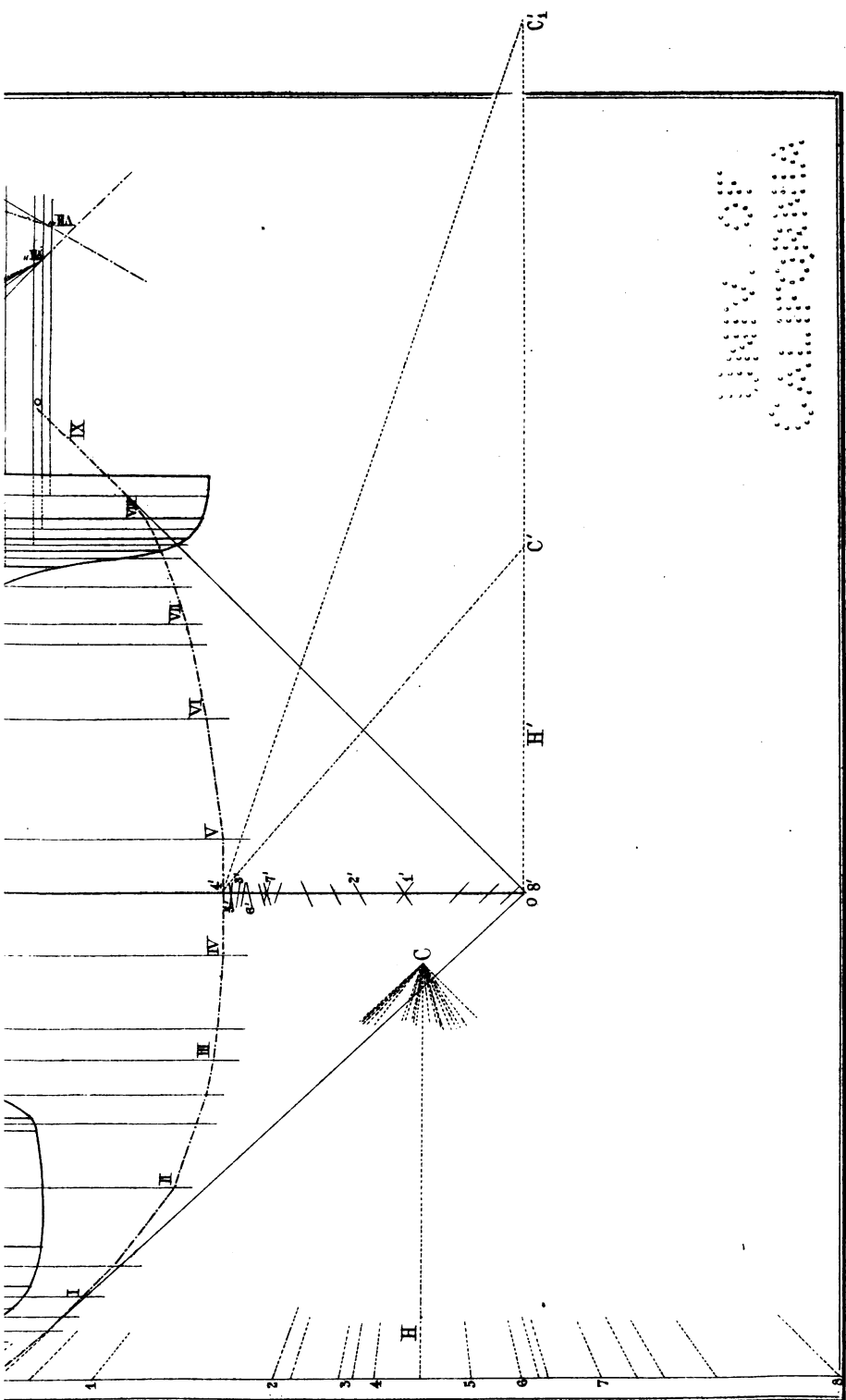
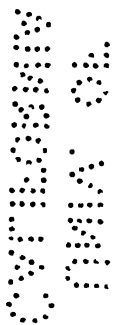


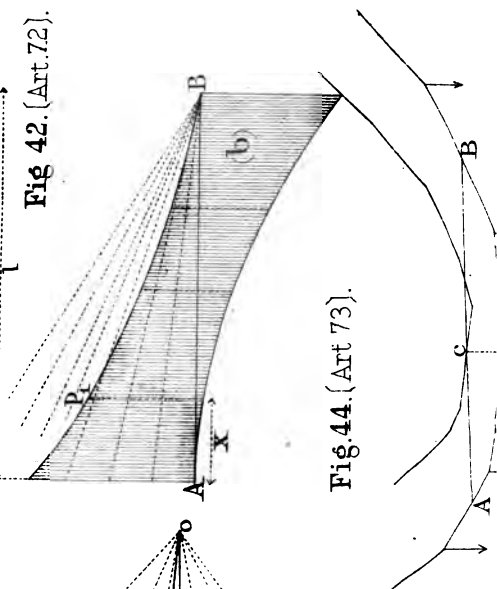
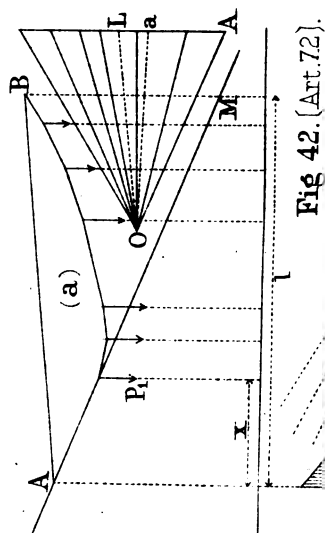
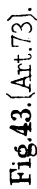
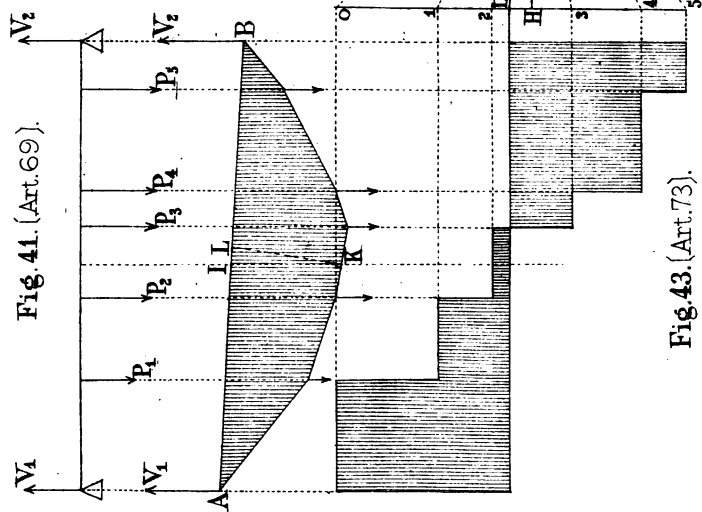
Fig. 40.
(Art. 63.)



PROBLEM OF CONSTRUCTION







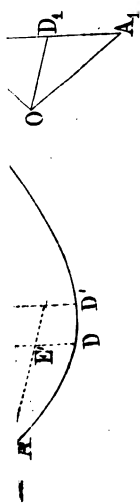


Fig 46 (b) (Art. 76).

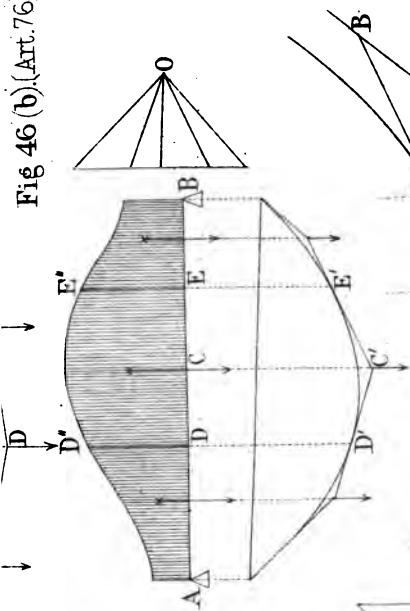


Fig. 45. (Art. 74).

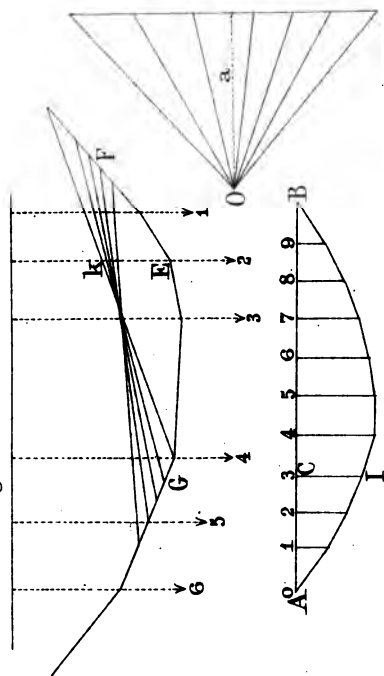
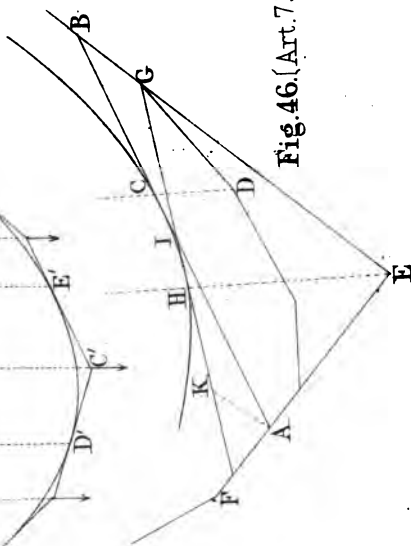


Fig. 46 (Art. 75).



24
30
33
35
36
37
38
39
40

Fig. 47. (Art. 77).

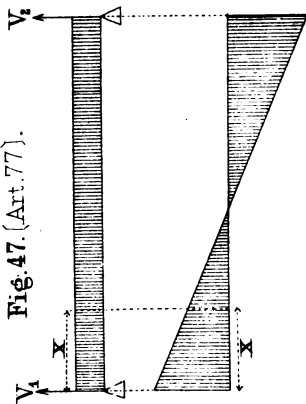


Fig. 48.
[Art. 78].

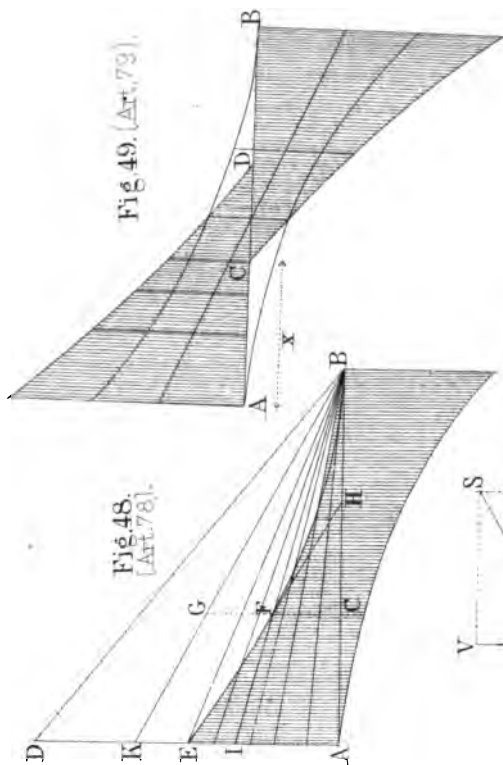


Fig. 49. (Art. 79).

Fig. 50. (Art. 80).

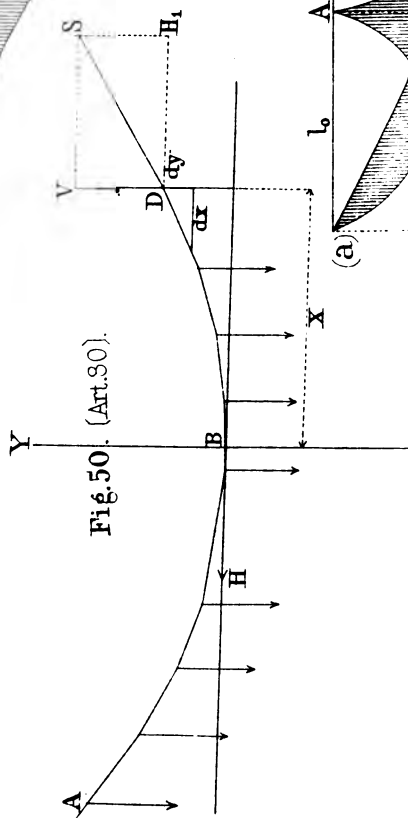


Fig. 52. (Art. 82-87).

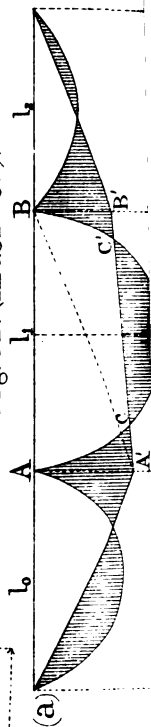
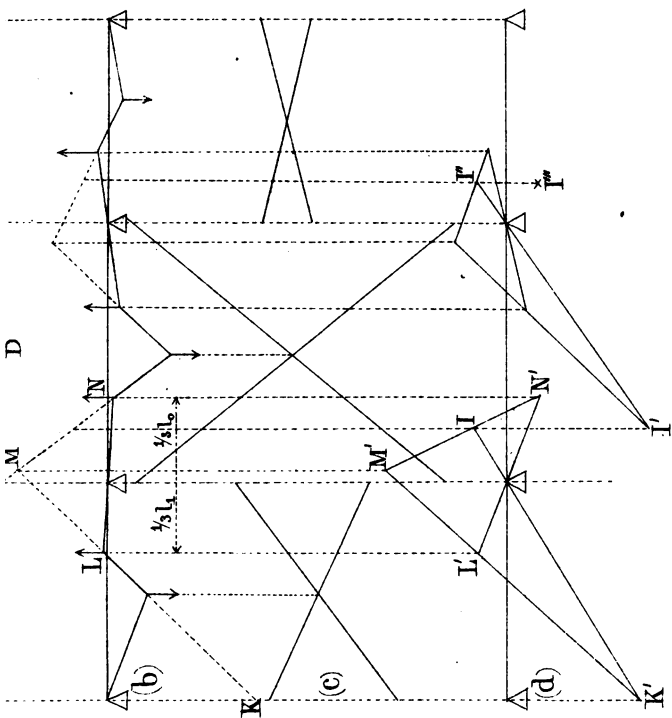
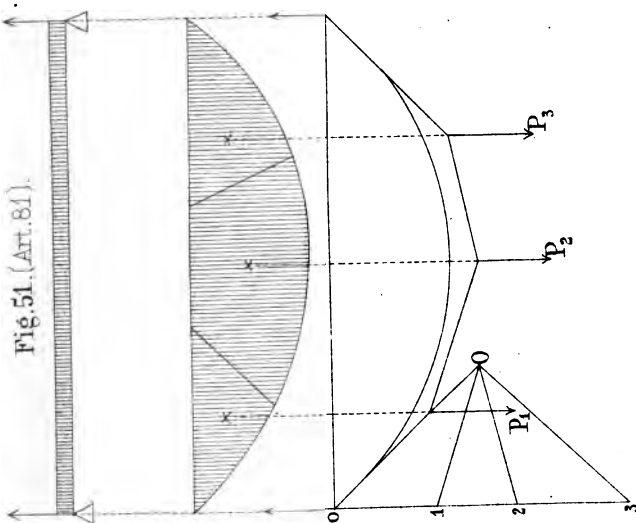


Fig. 51. (Art. 81).



THEORY OF
CALCULUS

卷之六

Fig. 53. (Art. 88).

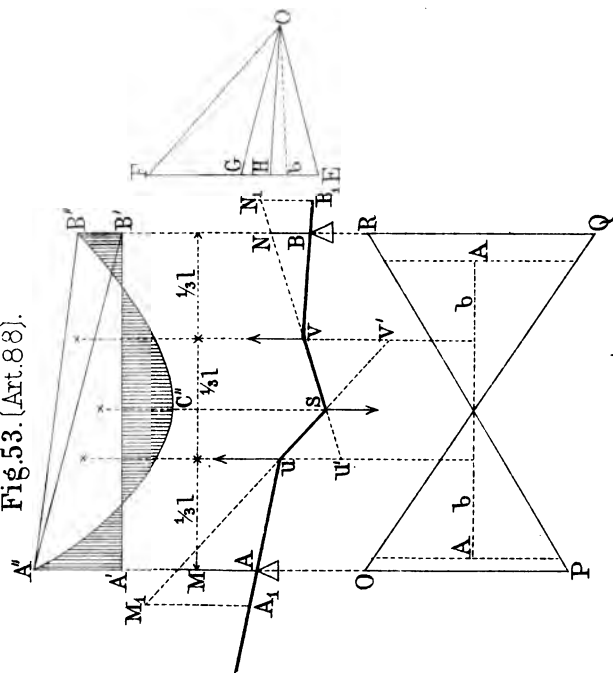


Fig. 54. (Art. 90).

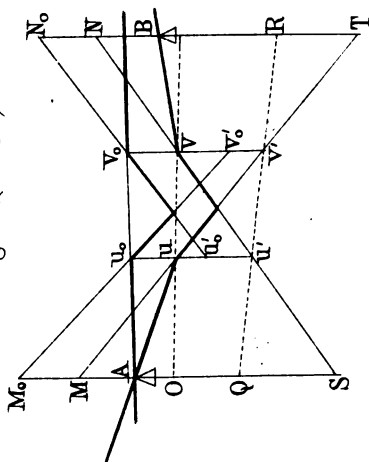


Fig. 55. (Art. 91).

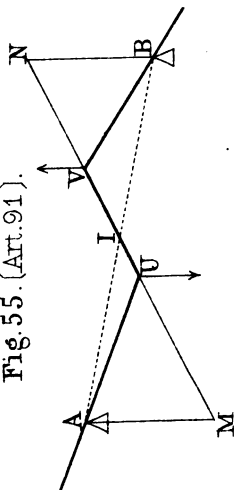


Fig. 56. (Art. 92).



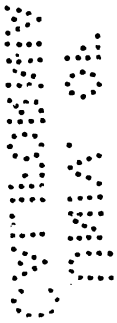


Fig. 60. (Art. 97).

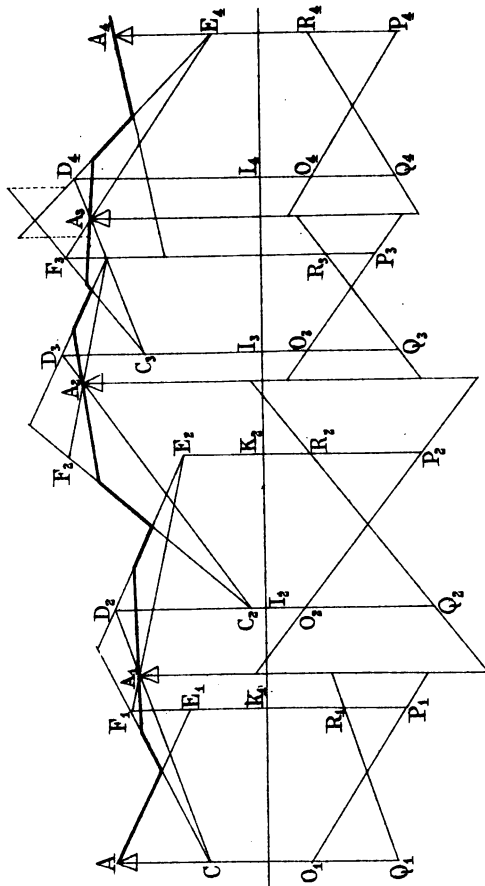


Fig. 61. (Art. 97).

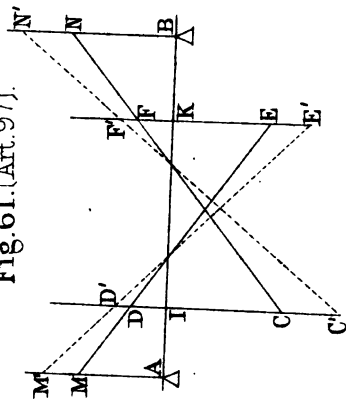


Fig. 62. (Art. 98).

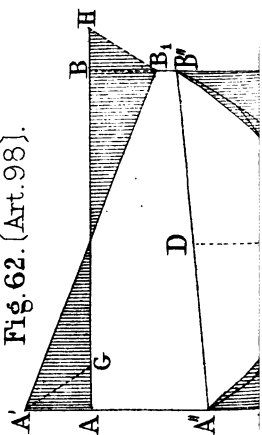
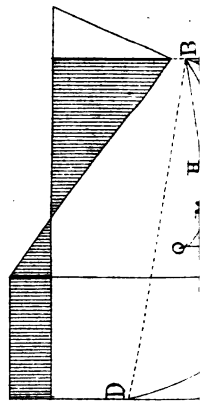


Fig. 64. (Art. 100).



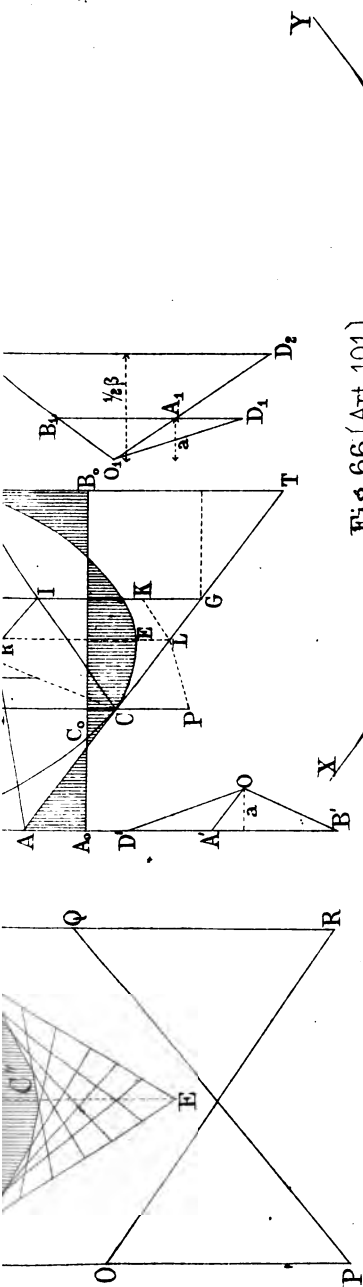
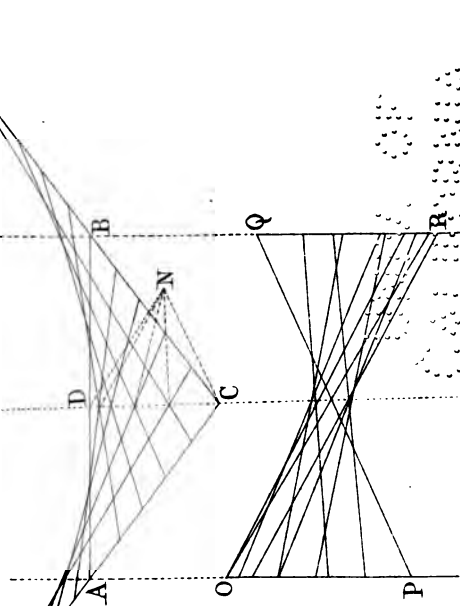
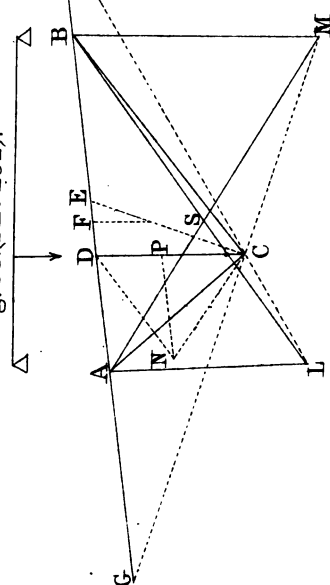


Fig. 66. (Art. 101).

Fig. 65. (Art. 101).

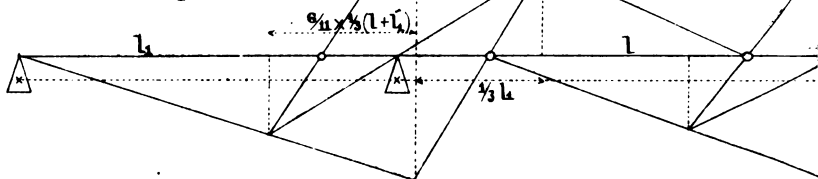


卷之四

Construction of

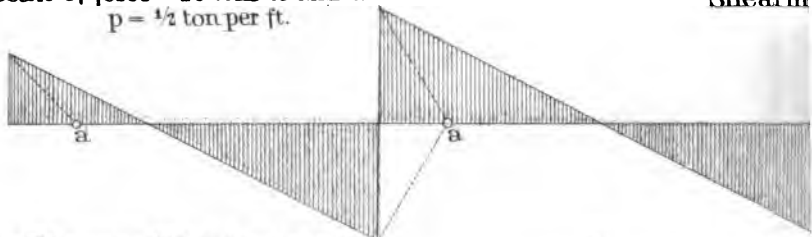
$$l_1 : l :: 5 : 6$$

$$l_1 = 80 \text{ feet } l = 96 \text{ ft.}$$



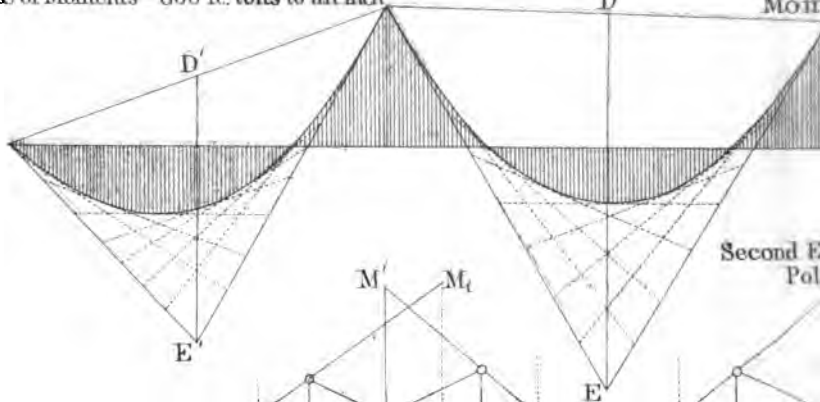
Scale of length = 50 feet to an inch.
 Scale of force = 20 tons to an inch.
 $p = \frac{1}{2}$ ton per ft.

Shearin

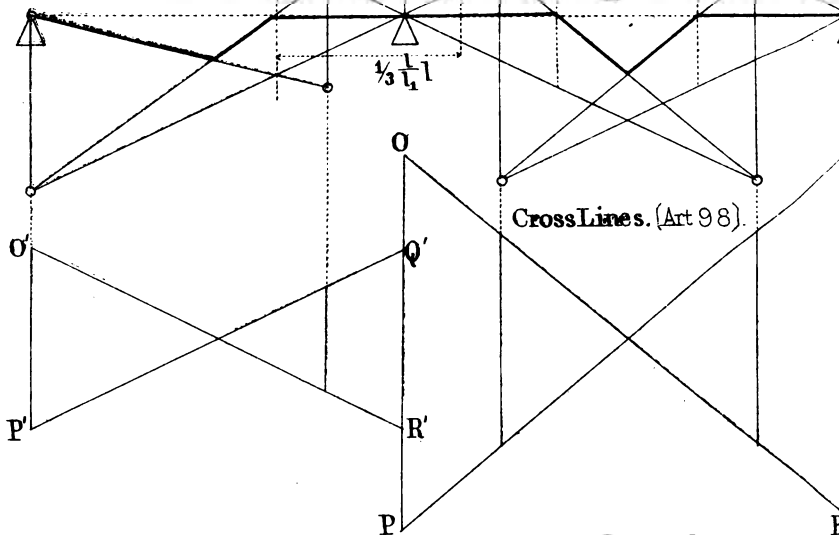


Scale of Moments - 800 ft. tons to an inch

Mom

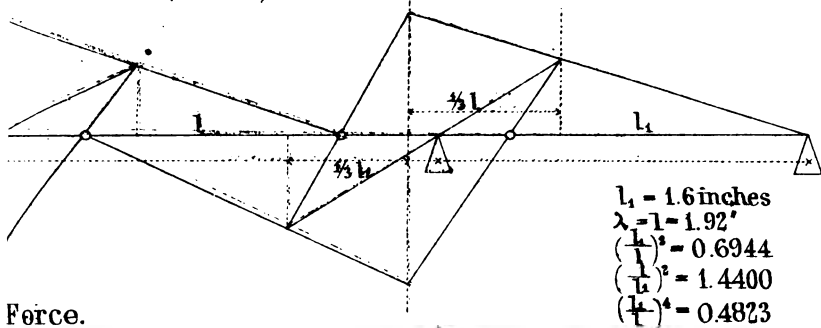


Second E
 Pol

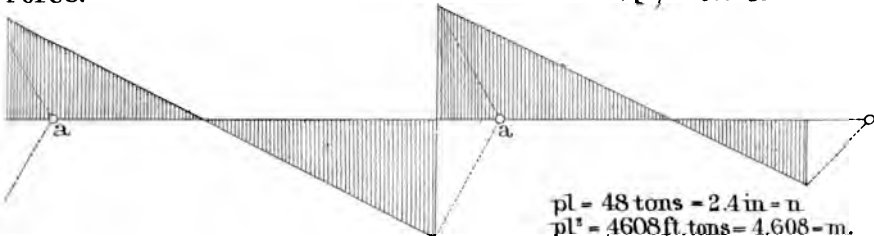


Cross Lines. (Art 98).

red Points. {Art. 93}



Force.



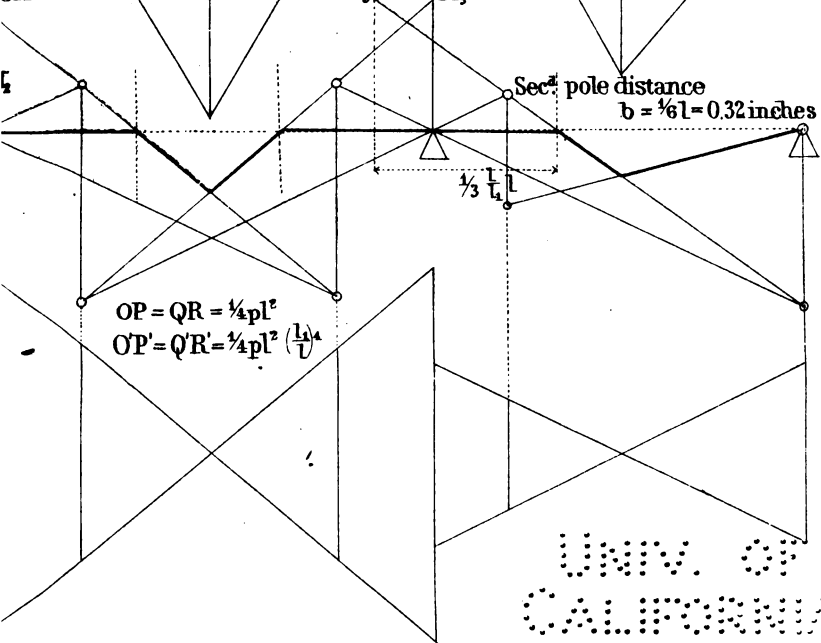
nts.

First pole distance

$$a = \frac{2.4}{4.608} = \frac{n}{m} = \frac{25}{48}$$

$a \sim 1 \text{ inch.}$

Equilibrium on



UNIV. OF CALIFORNIA

THE
JOURNAL
OF THE
ROYAL ANTHROPOLOGICAL INSTITUTE

De Bois.

Fig 67. {Art. 102}.

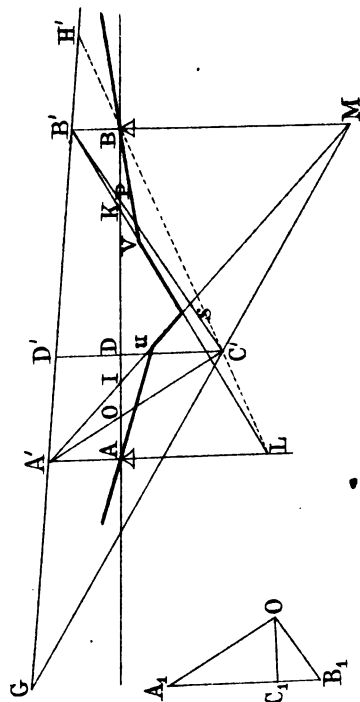


Fig. 70. {Art. 103}.

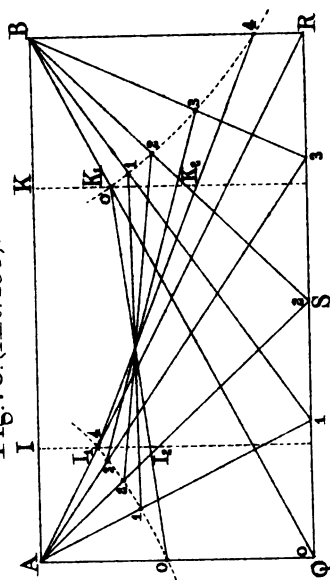


Fig. 68. {Art. 102}.

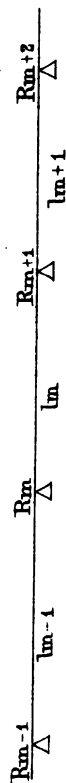


Fig 69. {Art. 102}.

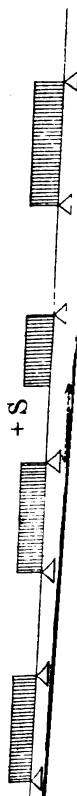


Fig. 73. {Art. 107}.

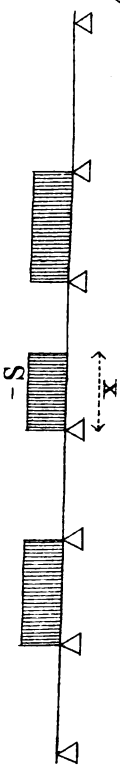


Fig. 75. (Art. 107).

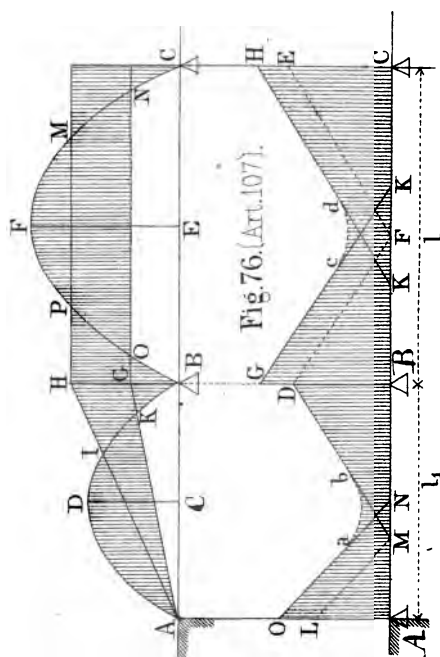


Fig. 76. (Art. 107).

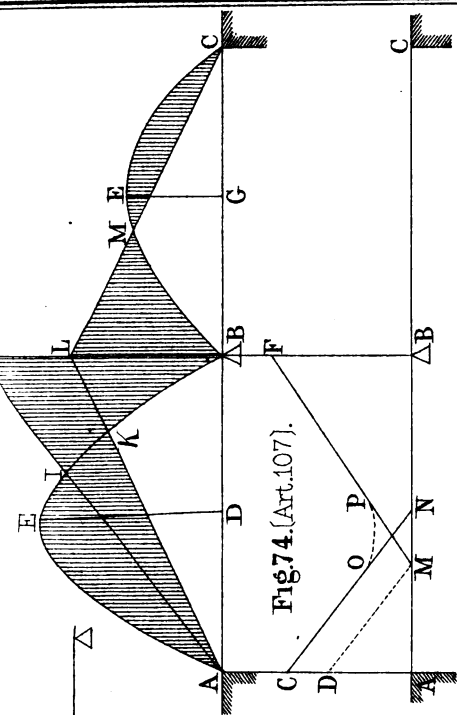
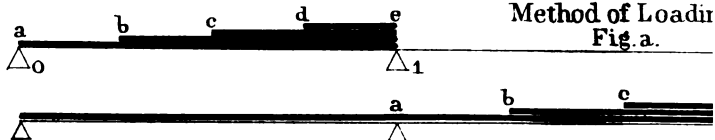


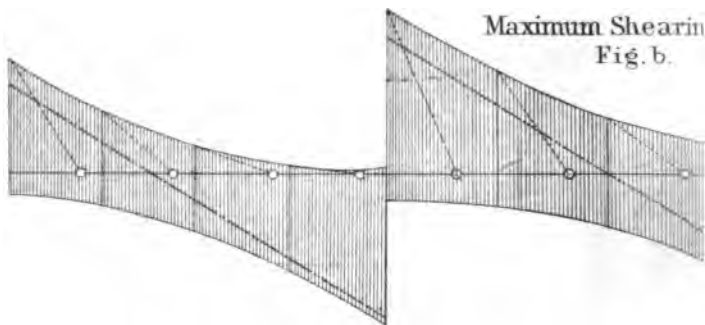
Fig. 74. (Art. 107).

2000

Method of Loading
Fig. a.



Maximum Shearing
Fig. b.



Second Equilibrium Position
Fig. c.

$$l_1 : l_2 : l_3 : l_4 : l_5 : l_6 \\ \lambda = 1$$

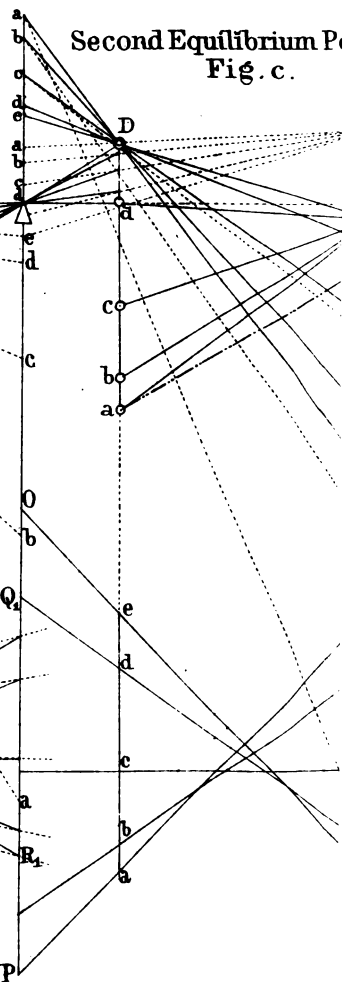


Fig. f.

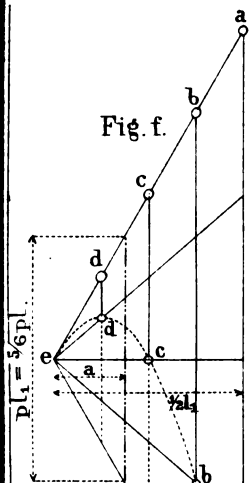


Fig. e.

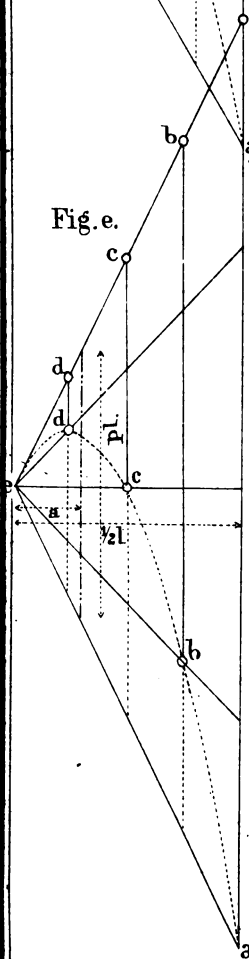
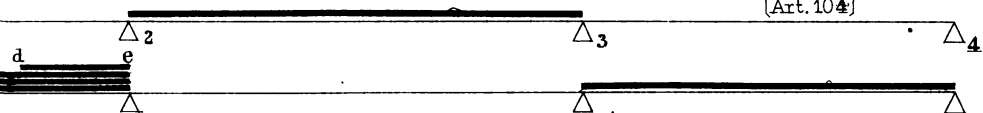
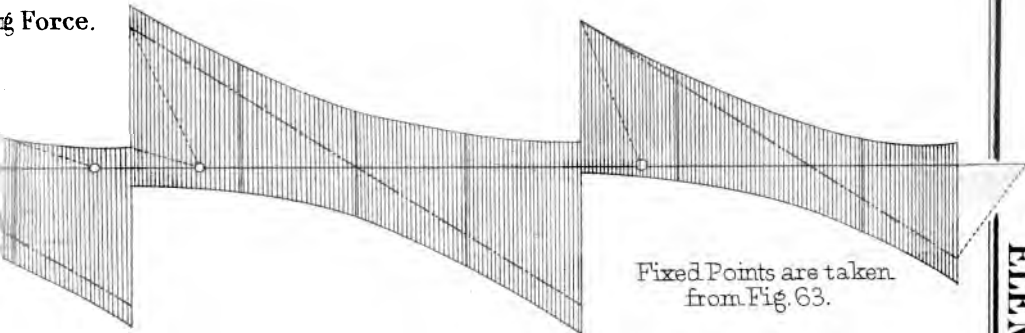


Fig 71.
(Art. 104)

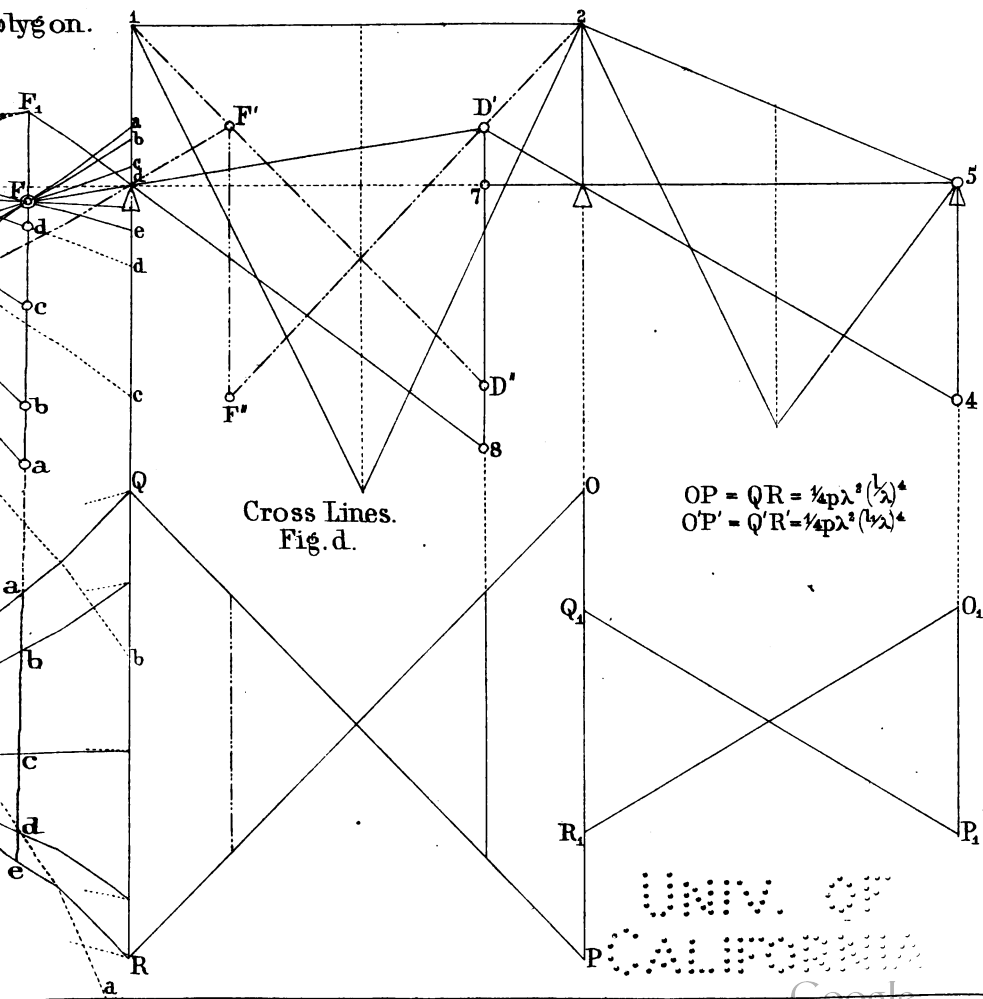


ing Force.



Fixed Points are taken
from Fig. 63.

lyg on.



TO THE
LIBRARY OF THE
CONGRESS

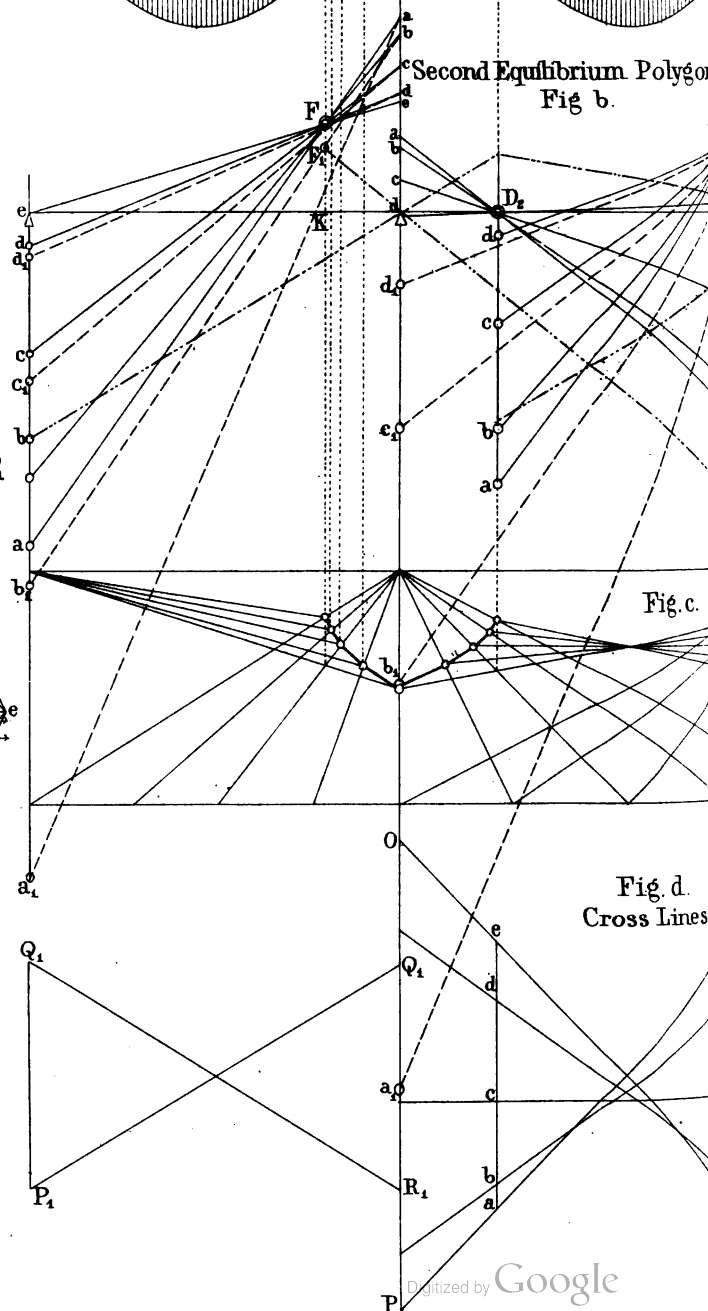
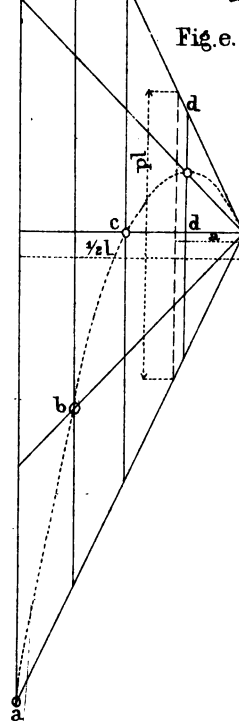
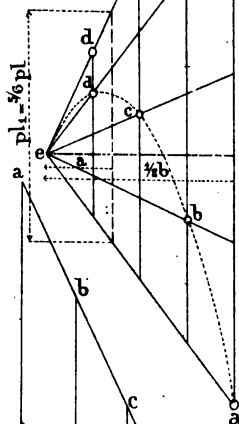
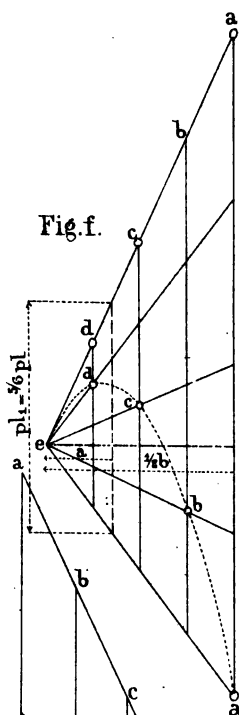
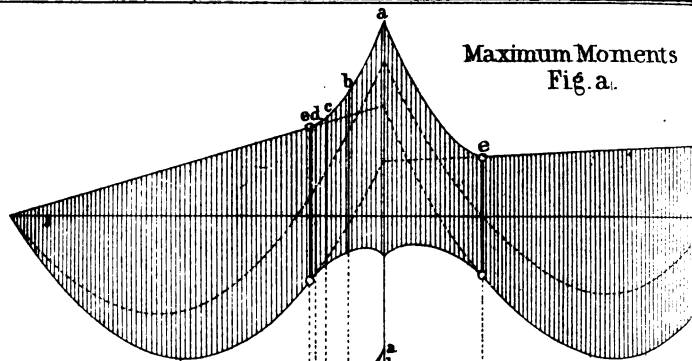
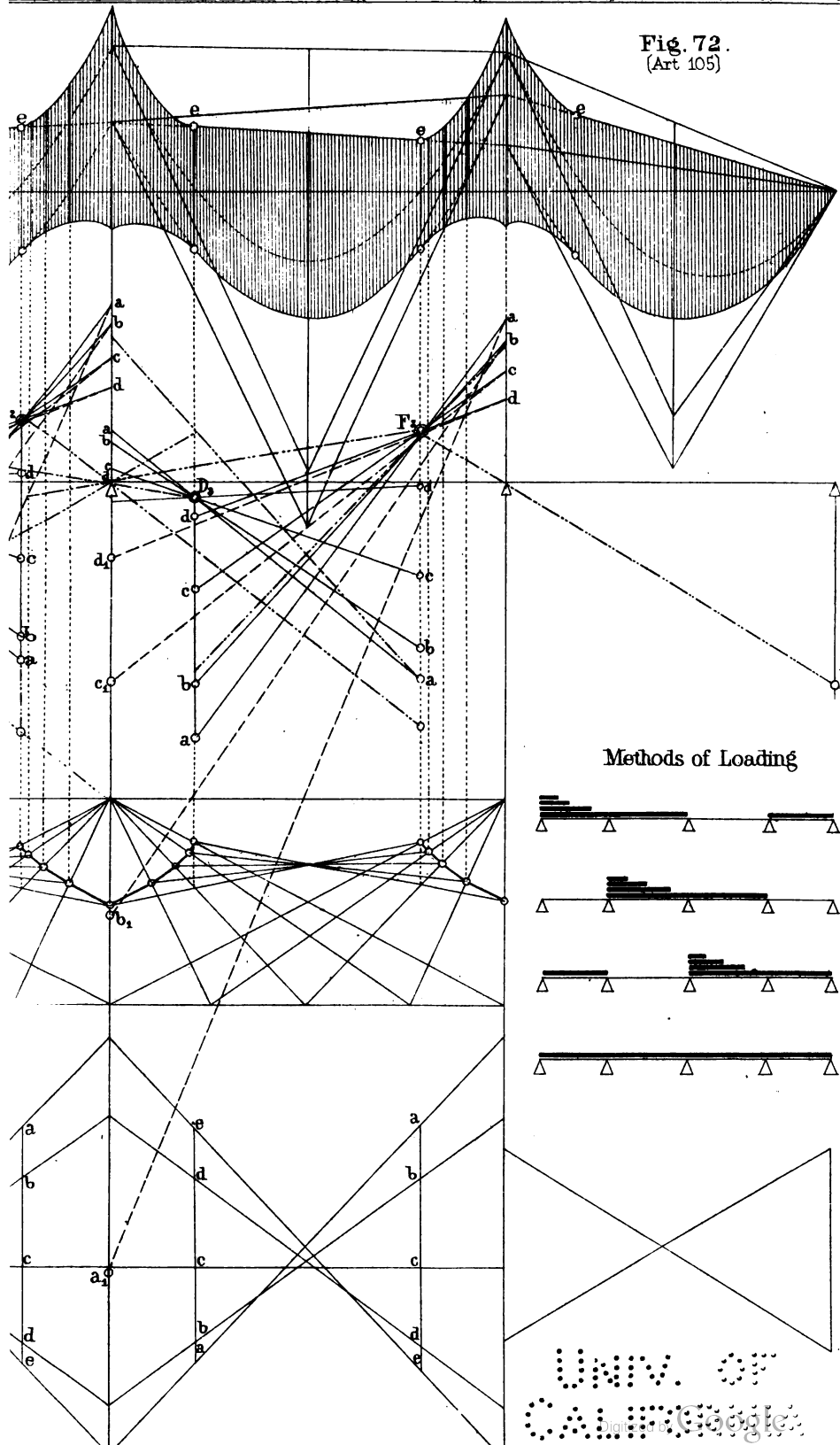


Fig. 72.
(Art 105)



TO THE
LIBRARY OF THE
CONGRESS

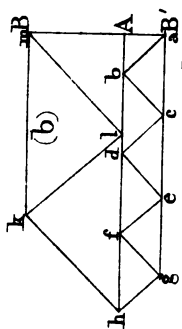
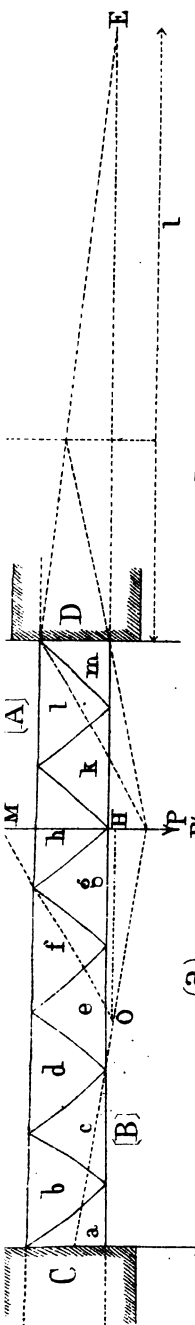
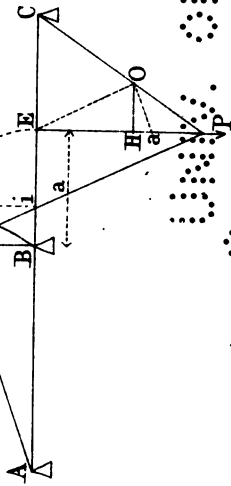


Fig. 81. (Art. 116).

Fig. 82. (Art. 118).






Fig. 83. (Art. 120).

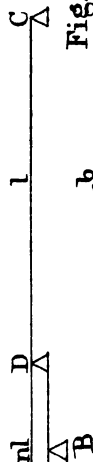
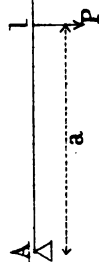


Fig. 84. (Art. 123).

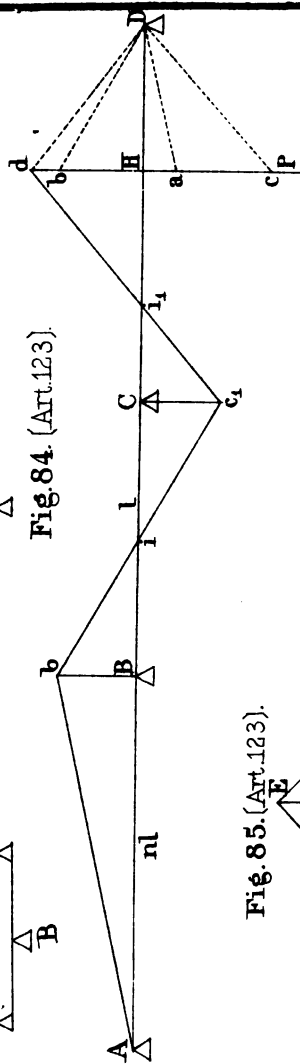


Fig. 85. (Art. 123).

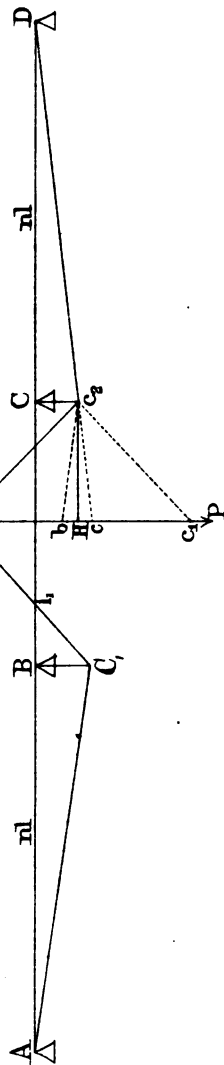


Fig. 86. (Art. 124).

(E)

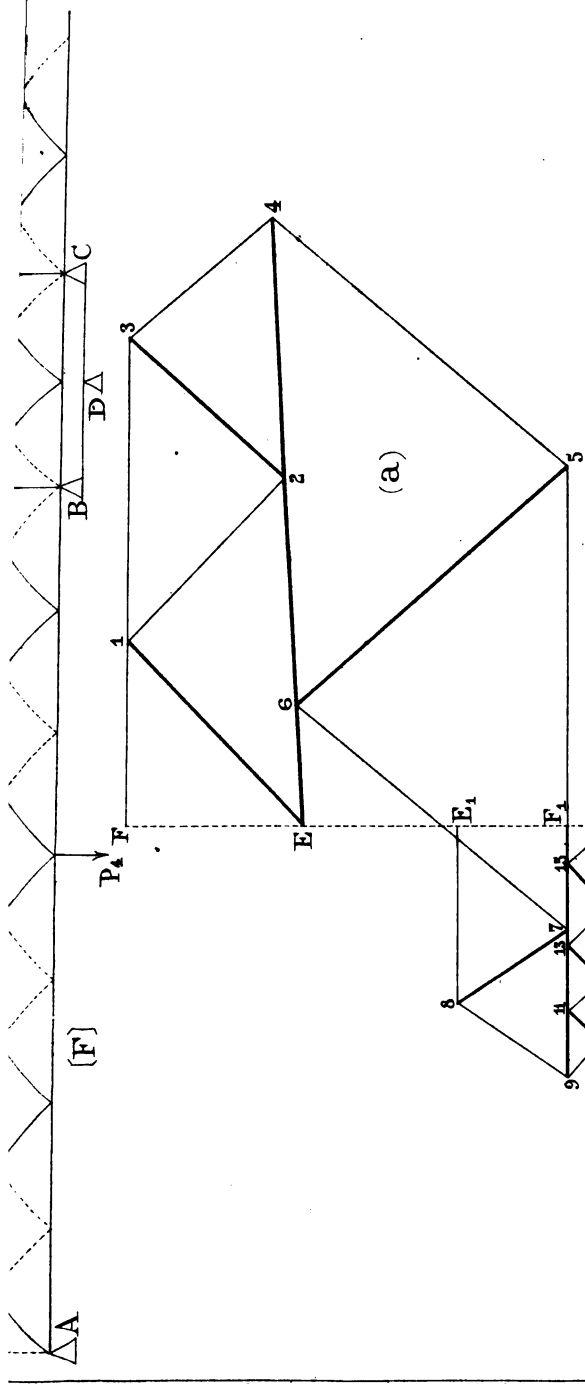
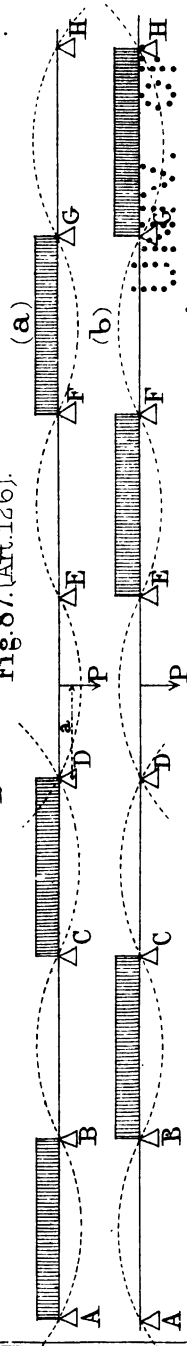


Fig. 87. (Art. 126).



Digitized by Google

Figure 1. The experimental setup. The subject is seated in front of a computer monitor. The subject's hand is positioned on the handle of the force-measuring device. The force-measuring device is connected to the computer monitor. The computer monitor displays the force vector and the force magnitude.

Fig. 88. (Art. 127).

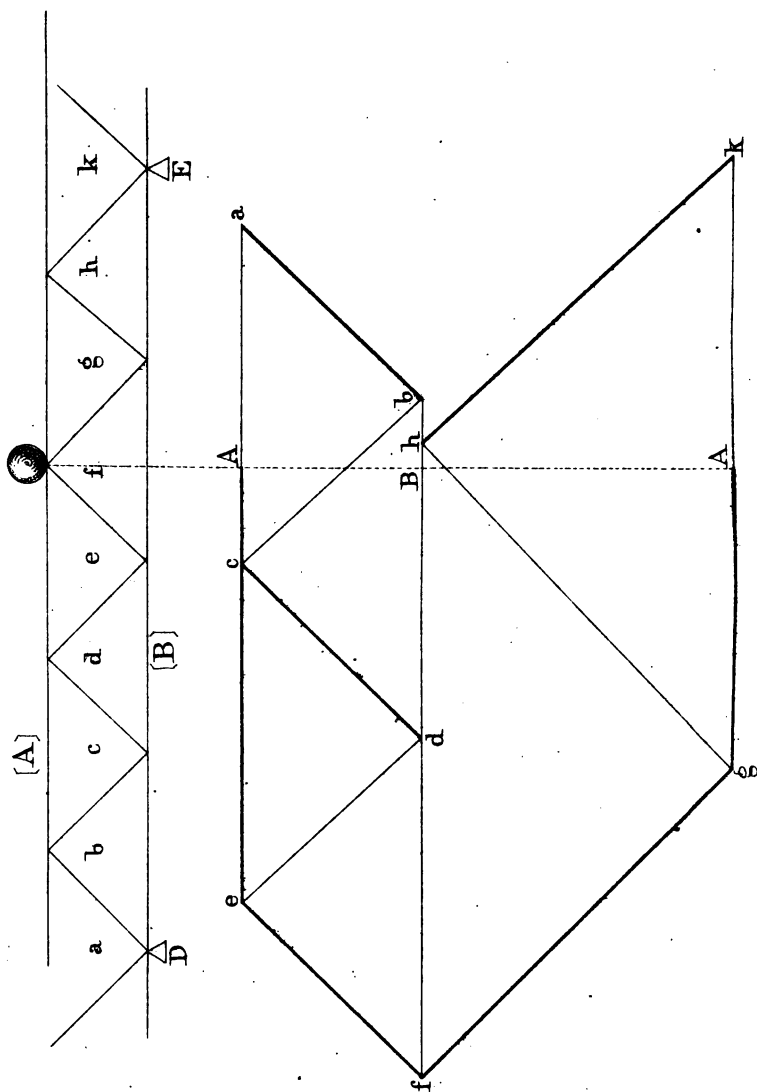


Fig.89.(Art.130).

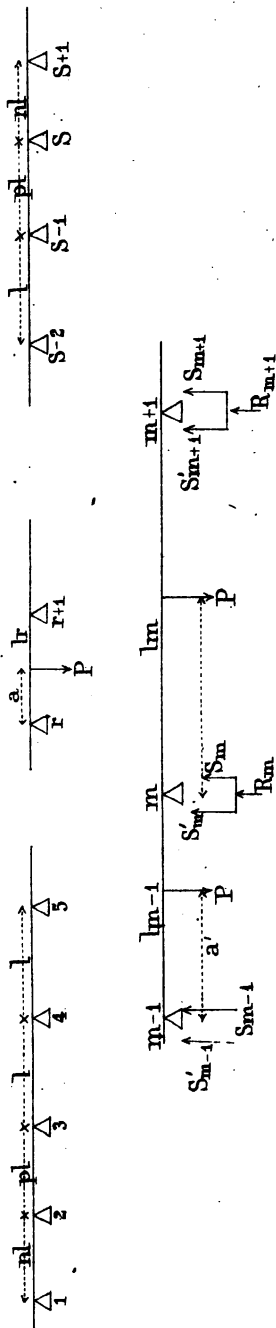


Fig.90.(Art.158).

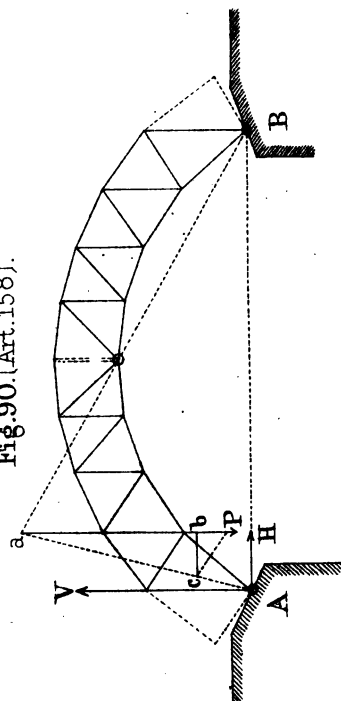
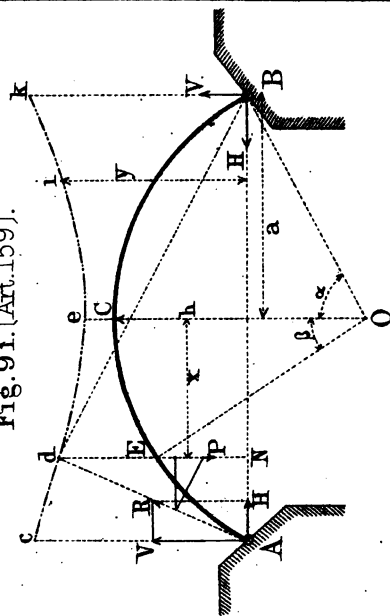


Fig.91.(Art.159).



UNIV OF
CALIFORNIA

1864

卷之五

一

二

Fig. 92. (Art. 160).

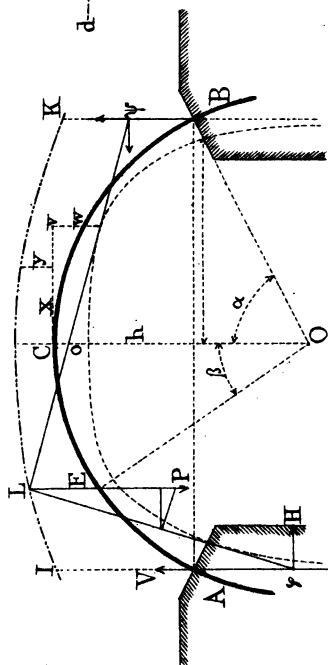


Fig. 93. (Art. 160).

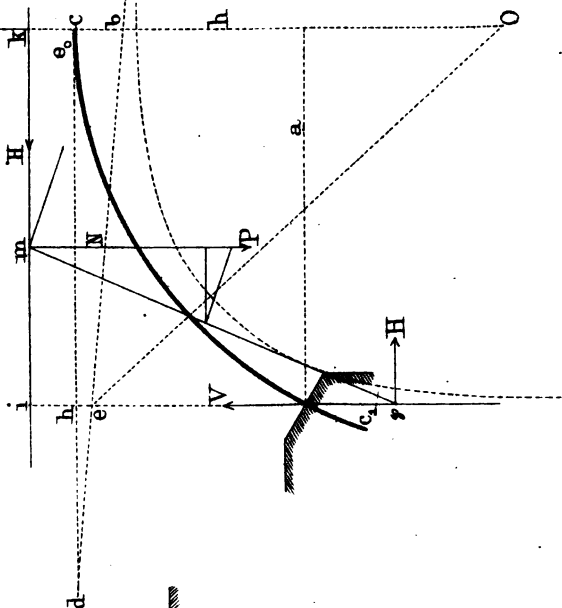


Fig. 94. (Art. 162).

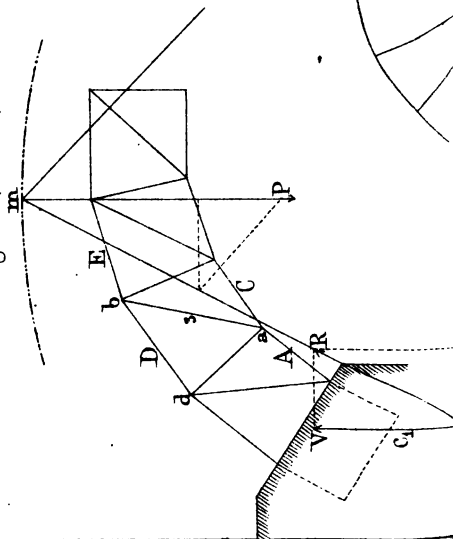


Fig. 96. (Art. 173).

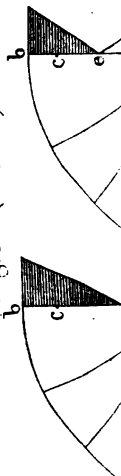


Fig. 95. (Art. 169).

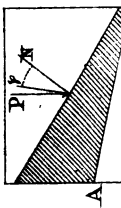


Fig. 97. (Art. 173).

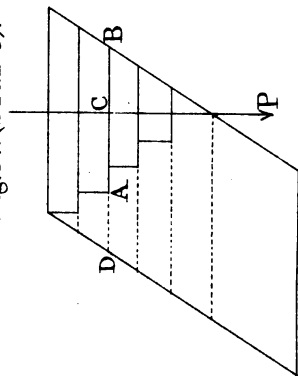


Fig. 98. (Art. 174).

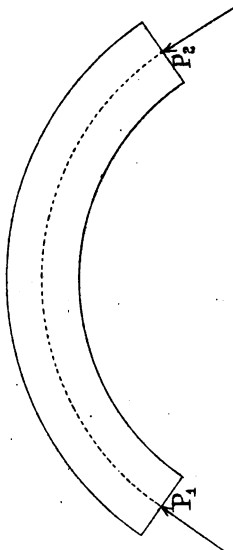
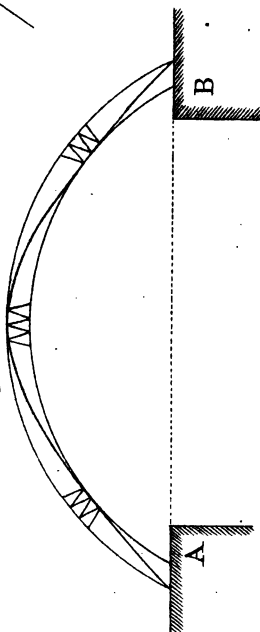
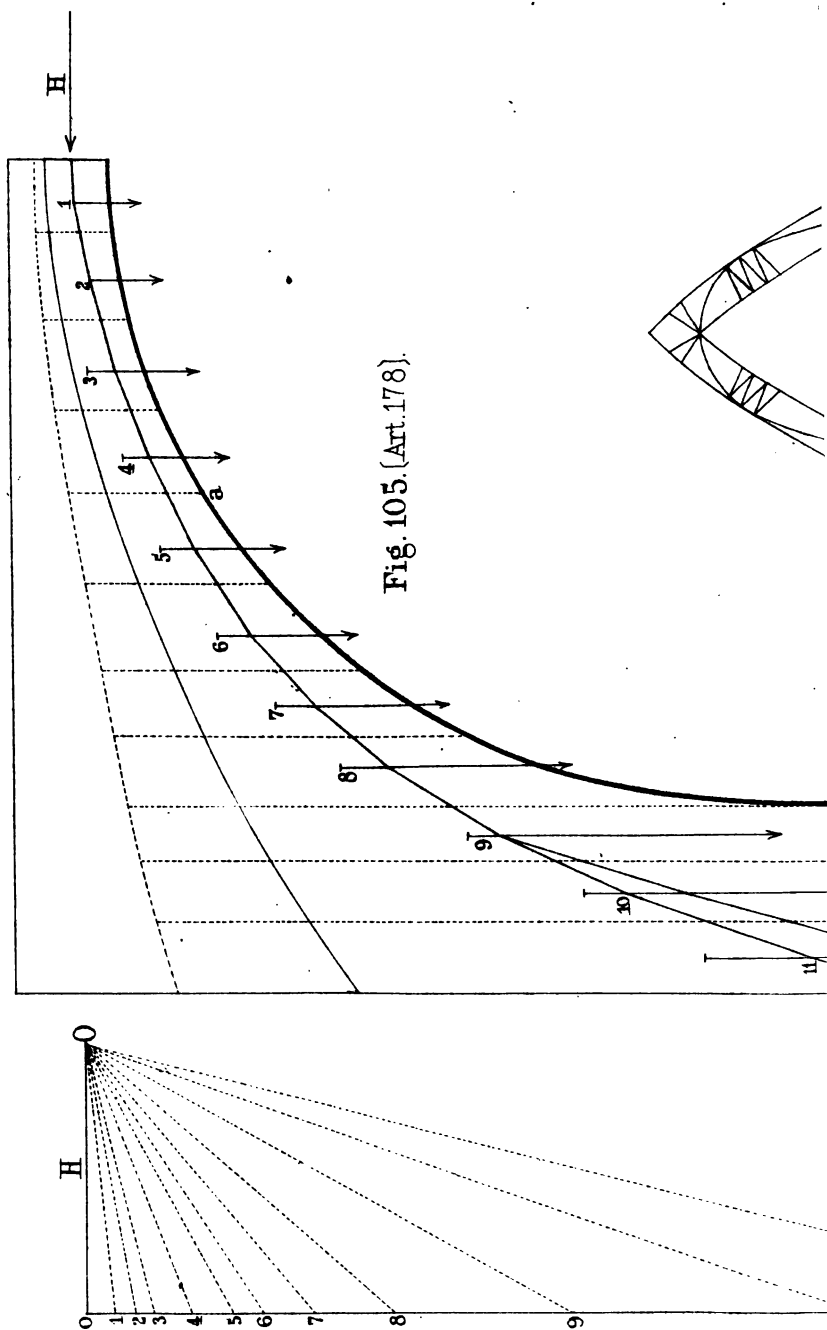


Fig. 99. (Art. 175).



DAY &
CALCULUS

86
87
88
89
90
91
92
93
94
95
96
97
98
99
100



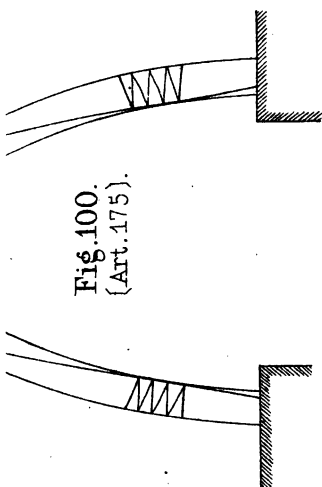
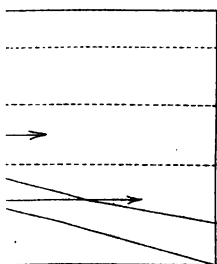


Fig.100.
(Art.175).

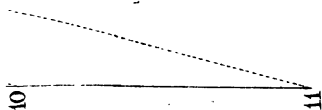


Fig.102. [Art.176].

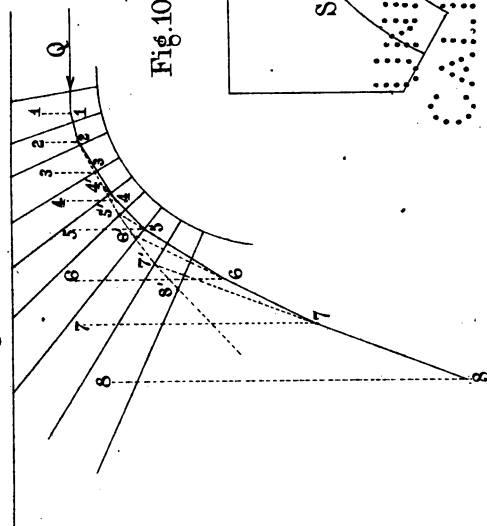


Fig.101. [Art.175].

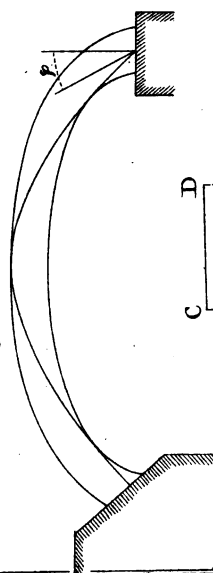


Fig.103. (Art.176).

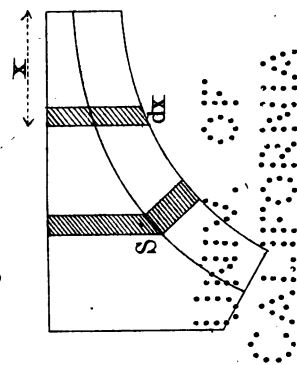


Fig.104.
(Art.176).

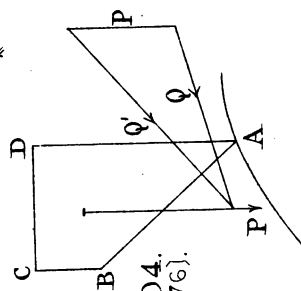


Figure 1. The structure of the proposed model.

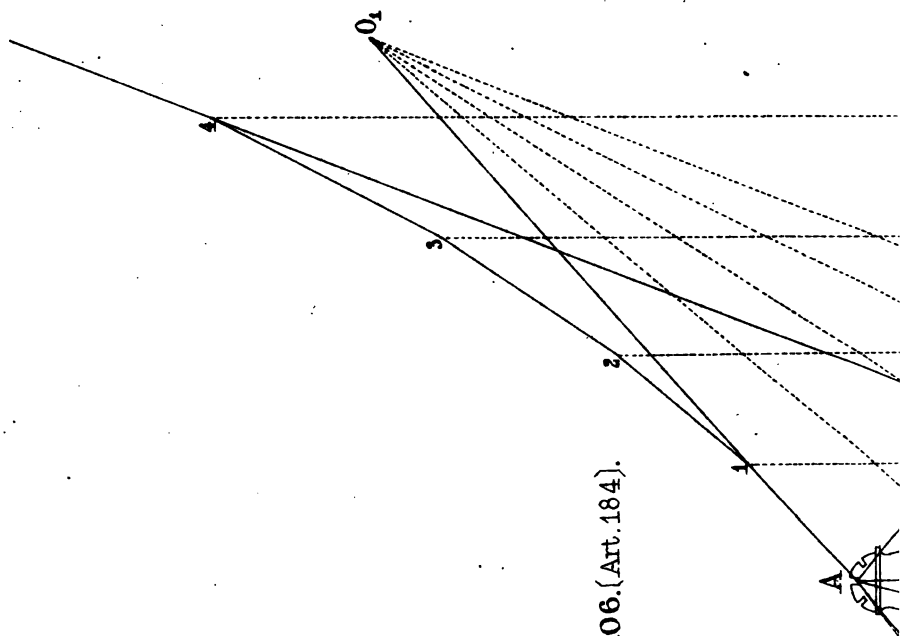
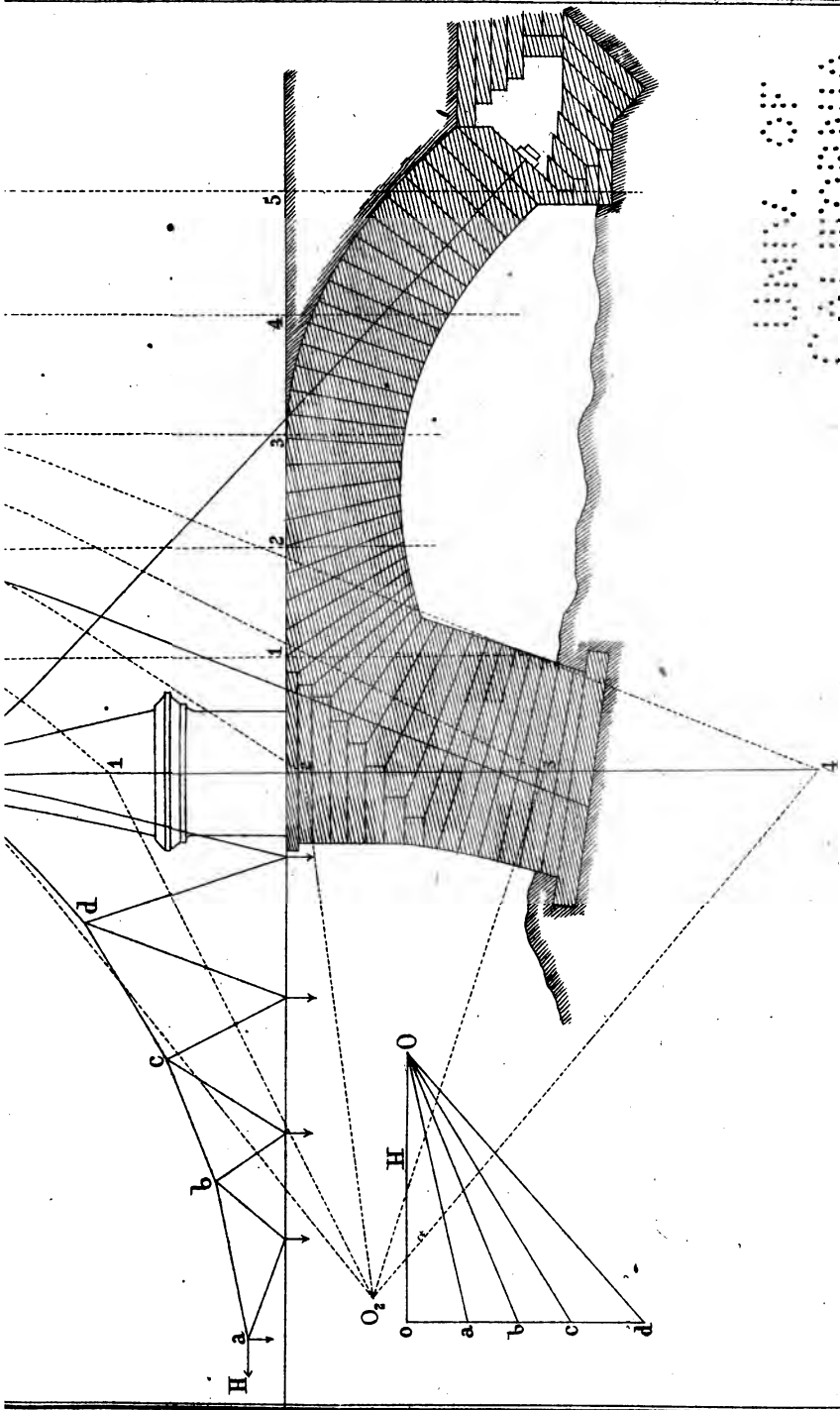
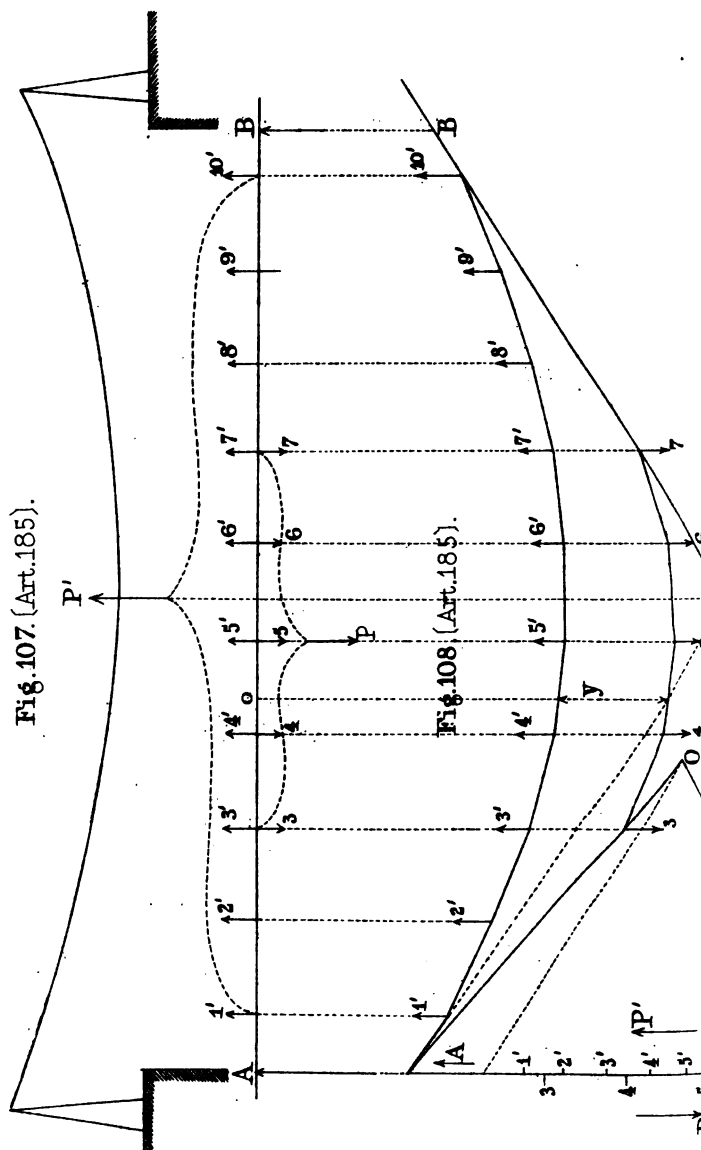
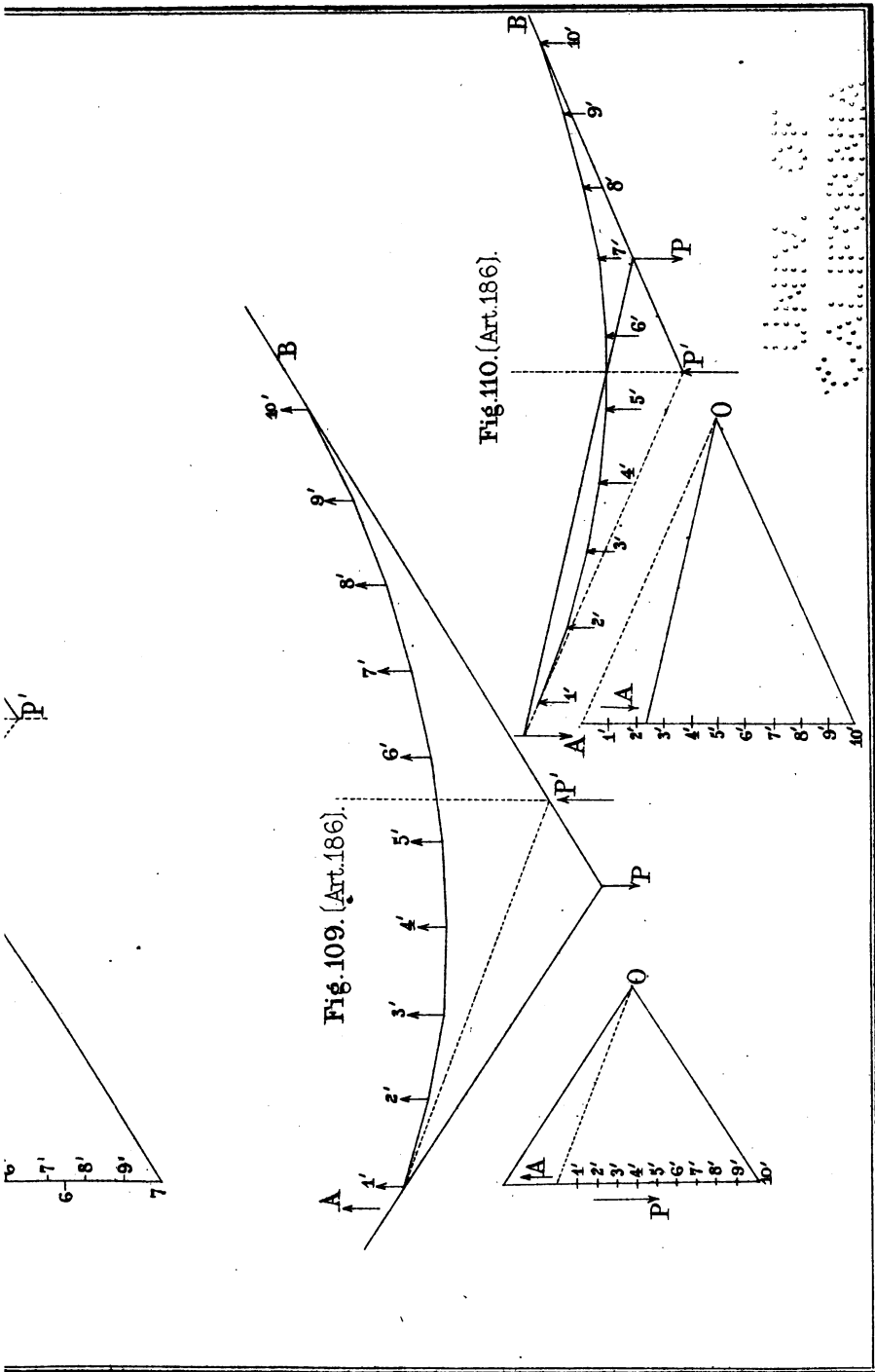


Fig. 106. (Art. 184).

THEORY OF PERSPECTIVE

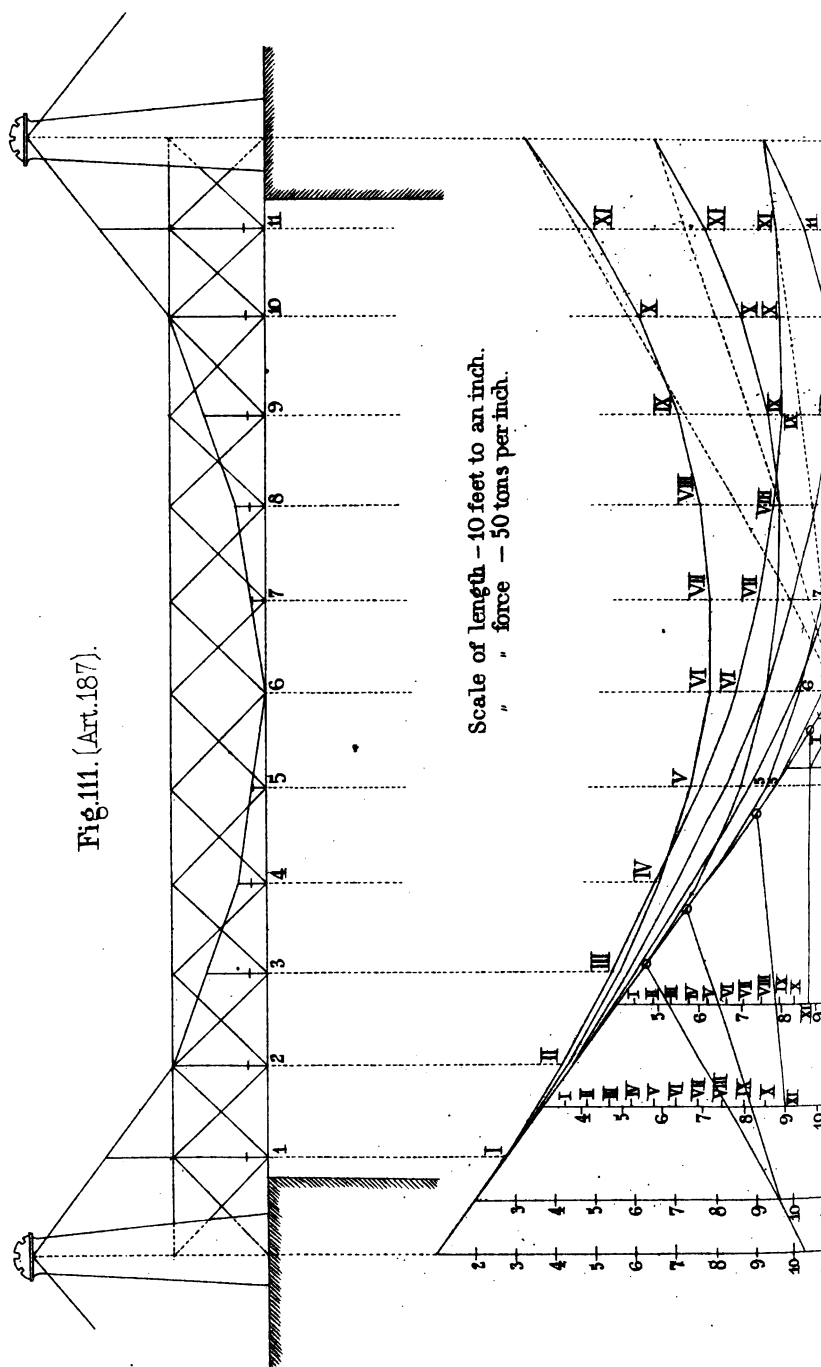


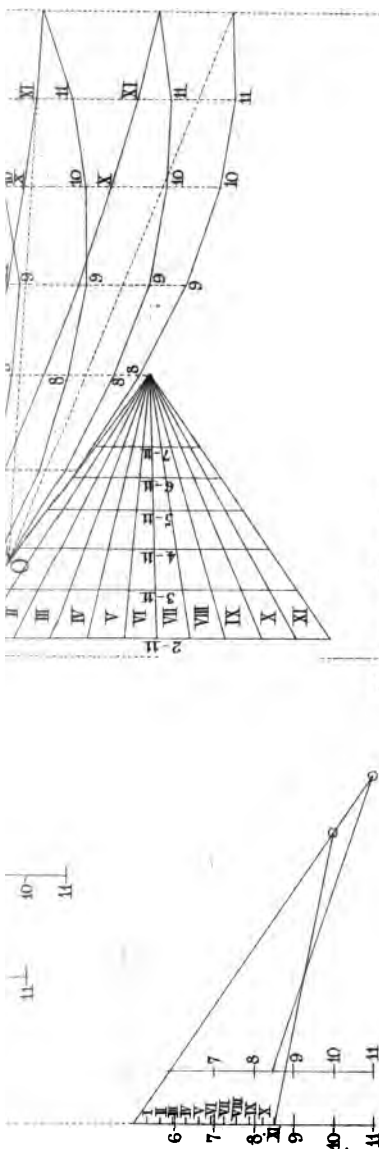




1845
1846
1847
1848
1849
1850

DR. BOIS.





Maximum Moments.



Maximum Shear.

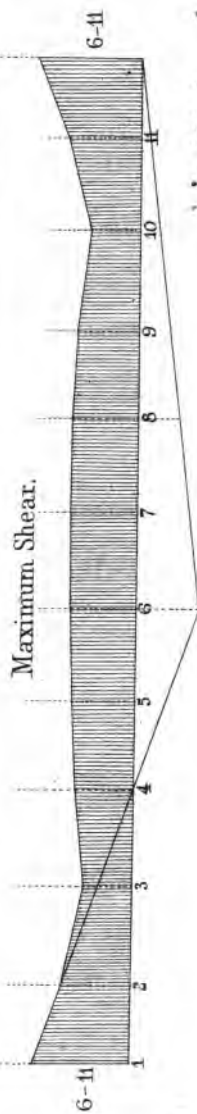
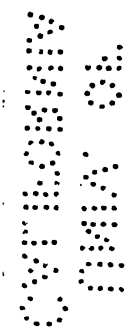


TABLE OF
VALUES



**AN INITIAL FINE OF 25 CENTS
WILL BE ASSESSED FOR FAILURE TO RETURN
THIS BOOK ON THE DATE DUE. THE PENALTY
WILL INCREASE TO 50 CENTS ON THE FOURTH
DAY AND TO \$1.00 ON THE SEVENTH DAY
OVERDUE.**

~~FEB 22 1941~~

AUG 06 1992

RECEIVED

808

CIRCULATION DEPT.

LD 21-100m-7,'39 (402s)

YC 43373

U. C. BERKELEY LIBRARIES



C041194097

911289

TG270

D8

atlas

THE UNIVERSITY OF CALIFORNIA LIBRARY

